



NORTHERN RHODESIA.

---

# MEDICAL REPORT

ON

Health & Sanitary Conditions  
for the Year 1929.



PUBLISHED ON BEHALF OF THE GOVERNMENT OF NORTHERN  
RHODESIA BY THE CROWN AGENTS FOR THE COLONIES  
4 MILLBANK, LONDON, S.W.1

1930



69823

~~3126A~~





**Forwarded with the compliments of the Crown Agents for the Colonies  
on behalf of the Government of Northern Rhodesia.**





NORTHERN RHODESIA.

---

# MEDICAL REPORT

ON

Health & Sanitary Conditions  
for the Year 1929.



PUBLISHED ON BEHALF OF THE GOVERNMENT OF NORTHERN  
RHODESIA BY THE CROWN AGENTS FOR THE COLONIES  
4 MILLBANK, LONDON, S.W.1

1930





# NORTHERN RHODESIA.

## Medical Report of Health and Sanitary Conditions for the Year 1929.

### SECTION I.

#### ADMINISTRATION.

##### (a) STAFF.

The administration of the department has been carried on throughout the year under disadvantageous circumstances, during a period in which the active development of the Territory has greatly increased the amount of work dealt with by the headquarters' staff.

Office accommodation is not only unsuitable but inadequate, and the anticipation that more accommodation would be available during the year has not been fulfilled. The approved clerical staff has not been available for the greater part of the year owing to one officer being absent on vacation leave and another on occasional leave necessitated by ill-health, and owing to sickness amongst other members of the staff. The routine work has consequently only been carried on with difficulty.

Mr. A. Douglas, the Senior Pharmacist, who retired at the end of 1928, had for many years undertaken the clerical and accountancy work of the department. On his retirement, one of the two pharmacists in the department took over his duties. It was considered at that time, though two pharmacists on the headquarters staff were necessary, the dispensing work did not justify the employment of two officers on dispensing duties alone. The illness of one of them during the year demonstrated the correctness of this decision, but during this illness the clerical staff was still further depleted. Early in the year the work of the department had so increased that the employment of two pharmacists to deal with dispensing and storekeeping became justified, and it was also evident that a senior officer experienced in both accountancy and clerical work was needed. The officer who had succeeded Mr. Douglas found it impossible to carry out the increasing clerical work and asked to be relieved of his duties. An extra appointment was, therefore, asked for and was approved, and Mr. Bliss joined the department late in December. Until this appointment was made, owing to the shortage of staff, though the necessity for re-organisation of the office was recognised, it was impossible to carry it out.

#### TABLE I.

*Staff (as at 31st December, 1929).*

##### European.

- 1 Principal Medical Officer.
- 2 Senior Medical Officers.
- 1 Specialist Surgical Officer.
- 15 Medical Officers.
- 2 Medical Officers (subsidised).
- 2 Pharmacists.
- 1 Accountant.
- 1 Clerk.
- 1 Lady Clerk.
- 2 Matrons.
- 17 Nurses.



**African.**

2 Native Clerks	}	at Headquarters.
1 Native Clerk and Store Assistant		
1 Laboratory Assistant		
1 Native Clerk at Broken Hill.		
94 Orderlies and Ward Attendants.		
77 other servants.		
15 Messengers.		
4 Sleeping Sickness Guards.		
8 Vaccinators.		
34 Labourers.		

**Appointments, Changes, etc., in Staff.**

Dr. J. D. Harmer was appointed Specialist Surgical Officer 1st April, 1929.  
 Dr. R. A. Newsom was appointed Medical Officer 24th January, 1929.  
 Dr. R. B. S. Smith was appointed Medical Officer 13th June, 1929.  
 Dr. H. S. Gear was appointed temporary Medical Officer 1st September, 1929.  
 Dr. E. J. Thomas was appointed Medical Officer 5th September, 1929.  
 Dr. A. R. Cox was appointed Medical Officer 31st October, 1929.  
 Mr. J. P. Bliss was appointed temporary accountant (seconded from District Administration) 27th December, 1929.  
 Mrs. L. Parkes was appointed Nursing Sister 3rd January, 1929.  
 Miss K. M. Brent was appointed Nursing Sister 9th March, 1929.  
 Miss J. Crafer was appointed Nursing Sister 30th May, 1929.  
 Miss B. Smith was appointed Nursing Sister 9th October, 1929.

**Resignations, Retirements, etc., in Staff.**

Mrs. P. F. Latimer resigned 14th March, 1929.  
 Miss A. Sellars resigned 21st November, 1929.  
 Miss A. H. Gittens transferred to Tanganyika Territory 30th September, 1929.  
 Dr. F. G. Harman Brown, temporary appointment terminated 14th March, 1929.

**Leave.**

		<i>From</i>	<i>To</i>
Dr. A. F. Wallace	.. ..	1st Jan., 1929.	3rd June, 1929.
Dr. R. R. Murray	.. ..	14th June, 1929.	31st Dec., 1929.
Dr. G. M. C. Powell	.. ..	4th Sept., 1929.	31st Dec., 1929.
Dr. J. A. Acheson	.. ..	13th Dec., 1929.	31st Dec., 1929.
Dr. J. A. McGregor	.. ..	1st Jan., 1929.	7th Aug., 1929.
Dr. P. B. Robinson	.. ..	1st Jan., 1929.	3rd July, 1929.
Dr. N. D. Sanderson	.. ..	18th July, 1929.	31st Dec., 1929.
Dr. T. R. F. Kerby	.. ..	4th Sept., 1929.	31st Dec., 1929.
Miss A. B. A. Buck	.. ..	1st Jan., 1929.	14th May, 1929.
Mrs. M. C. Lewis	.. ..	7th April, 1929.	25th Oct., 1929.
Mrs. E. M. Cronin	.. ..	27th May, 1929.	22nd Oct., 1929.
Miss Adair	.. ..	26th April, 1929.	18th Sept., 1929.
Miss M. A. A. G. Goodyear		9th Nov., 1929.	31st Dec., 1929.
Miss E. Bowyer	.. ..	11th Oct., 1929.	31st Dec., 1929.
Miss A. H. Gittens	.. ..	20th May, 1929.	30th Sept., 1929.
Miss M. E. Riddle	.. ..	9th Sept., 1929.	31st Dec., 1929.
Miss M. A. B. Cookson	.. ..	3rd Mar., 1929.	16th Aug., 1929.

**Distribution of Staff.**

Livingstone .. ..	{	Principal Medical Officer.
		Specialist Surgical Officer.
		2 Medical Officers.
		2 Pharmacists.
		Accountant.
		Clerk.
		Lady Clerk.
		Matron.
		6 Nursing Sisters.



Lusaka	..	..	Medical Officer.
			Matron.
			3 Nursing Sisters.
Broken Hill	..	..	Senior Medical Officer.
			Matron.
			4 Nursing Sisters.
Fort Jameson	..	..	Medical Officer.
			2 Nursing Sisters.
Mongu	..	..	Medical Officer.
			Nursing Sister.
Kasama	..	..	Medical Officer.
			Nursing Sister.
Fort Rosebery	..	..	Senior Medical Officer.
Mazabuka	..	..	Medical Officer.
Abercorn	..	..	Medical Officer.
Choma	..	..	Medical Officer.
Balovale	..	..	Medical Officer.

#### Staff Postings (Medical Officers), 1929.

- Dr. P. H. Ward, the Principal Medical Officer, was in Livingstone throughout the year, except for visits of inspection to the North.
- Dr. H. Leach was stationed at Fort Rosebery throughout the year.
- Dr. A. F. Wallace was stationed at Broken Hill on his return from leave 3rd June, 1929.
- Dr. J. D. Harmer was stationed at Livingstone except while travelling on duty to Broken Hill, Lusaka, Mazabuka, etc.
- Dr. A. Kinghorn was stationed at Abercorn throughout the year, except while on leave 1st October, 1929, to 10th October, 1929.
- Dr. R. R. Murray was stationed at Kasama until his departure on leave 14th June, 1929.
- Dr. W. J. Sheehan was stationed at Mongu throughout the year.
- Dr. G. M. C. Powell was stationed at Lusaka until his departure on leave 4th September, 1929.
- Dr. J. A. Acheson was stationed at Fort Jameson until July, 1929, when he proceeded on a two months' Sleeping Sickness investigation in the Luangwa Valley. He returned to Fort Jameson 1st October, 1929, and, with the exception of local leave to Blantyre 30th October, 1929, to 7th November, 1929, was stationed there until his departure on leave 13th December, 1929.
- Dr. H. A. Gilkes was stationed at Broken Hill 1st January, 1929, to 8th June, 1929, and at Kasama 10th June, 1929, until his transfer to Fort Jameson, at which station he remained from 3rd December, 1929, to the end of the year.
- Dr. J. A. McGregor was stationed at Lusaka on his return from leave 7th August, 1929.
- Dr. P. B. Robinson was stationed at Choma on his return from leave 3rd July, 1929.
- Dr. N. D. Sanderson was stationed at Choma until his departure on leave 18th July, 1929.
- Dr. T. R. F. Kerby was stationed at Livingstone until his departure on leave 4th September, 1929.
- Dr. F. G. H. Brown, with the exception of local leave 22nd January, 1929, to 6th February, 1929, to Salisbury, was stationed at Mazabuka until the termination of his temporary appointment on 14th March, 1929.
- Dr. R. A. Newsom was stationed at Mazabuka on appointment 24th January, 1929, until the end of the year.
- Dr. R. B. S. Smith was stationed at Livingstone on appointment 22nd July, 1929, until his departure for Balovale 3rd October, 1929, where he remained until the end of the year.
- Dr. H. S. Gear was stationed at Broken Hill on appointment 1st September, 1929, at Livingstone 4th September, 1929, to 8th December, 1929, and at Ndola 9th December, 1929, until the end of the year.
- Dr. E. J. Thomas was stationed at Livingstone on appointment 2nd October, 1929, to the end of the year.
- Dr. A. R. Cox was stationed at Livingstone on appointment 22nd November, 1929, to the end of the year.



## (b) LIST OF ORDINANCES AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR 1929.

The Town Planning Ordinance was enacted at the November Session of the Legislative Council.

The Public Health Ordinance was drafted, but its enactment was postponed, as it required further consideration.

## (c) FINANCIAL.

## Calendar Year 1929.

The following figures have been provided by the Treasury :

TABLE II.										£
Total revenue of Colony	..	..	..	..	..	..	..	..	..	632,615
<i>Health Vote Revenue.</i>										
Hospital Fees, all sources	..	..	..	..	..	..	..	..	..	6,354
Medical Subsidies	..	..	..	..	..	..	..	..	..	5,734
Sale of Drugs, including Veterinary Department sale of Vaccine	..	..	..	..	..	..	..	..	..	409
										£12,497
<i>Expenditure.</i>										£
Personal Emoluments	..	..	..	..	..	..	..	..	..	28,471
Other Charges	..	..	..	..	..	..	..	..	..	21,910
										£50,381

Health Vote Expenditure—7·96% of Total Revenue of Colony.

## SECTION II.

## PUBLIC HEALTH.

## A. General Remarks.

During the year there has been an increase in the European population of 2,445, the total population being 9,981.

The total number of cases treated in European and Native hospitals throughout the territory shows an increase of 33 and 410 respectively.

Summary of Infectious Diseases notified during the year :

							EUROPEAN.		NATIVES.	
							Cases.	Deaths.	Cases.	Deaths.
Influenza	..	..	..	..	..	..	167	—	727	105
Enteric Fever	..	..	..	..	..	..	22	—	37	9
Paratyphoid Fever	..	..	..	..	..	..	2	—	—	—
Dysentery	..	..	..	..	..	..	10	—	72	20
Typhus Fever	..	..	..	..	..	..	2	2	1	1
Relapsing Fever	..	..	..	..	..	..	4	—	24	1
Rubella..	..	..	..	..	..	..	3	—	—	—
Measles	..	..	..	..	..	..	3	—	1	—
Variola	..	..	..	..	..	..	1	—	2,552	243
Variola (Alastrim)	..	..	..	..	..	..	—	—	1,303	59
Varicella	..	..	..	..	..	..	1	—	106	2
Pneumonia (unclassified)	..	..	..	..	..	..	2	—	80	23
„ Broncho	..	..	..	..	..	..	1	1	8	4
„ Lobar	..	..	..	..	..	..	—	—	15	2
Whooping Cough	..	..	..	..	..	..	2	—	9	—
Scarlatina	..	..	..	..	..	..	1	—	—	—
Erysipelas	..	..	..	..	..	..	1	—	—	—
Tuberculosis	..	..	..	..	..	..	—	—	2	1
Puerperal Fever	..	..	..	..	..	..	—	—	1	1
Cerebro Spinal Meningitis	..	..	..	..	..	..	—	—	100	74
Diphtheria	..	..	..	..	..	..	—	—	1	—



## I. GENERAL DISEASES.

## Pellagra.

One case only is reported—a prisoner from Livingstone Gaol, who was admitted to, and died in, Livingstone Hospital.

The activities of the copper belt in the North have attracted a large number of settlers to the country, but, though a small number of these new settlers is engaged in industrial and farming pursuits in the more settled areas, the majority are living in the mining area, where conditions are still in the transition stage, townships in the course of construction and sanitation schemes not yet completed.

These new settlers are unused to tropical conditions, and few pay attention to the usual precautions which should be taken to safeguard the health in the tropics. It is therefore a matter for congratulation that the death rate for the year is only 9·32 per thousand, as compared with 12·87 last year.

Dr. Wallace, Senior Medical Officer, Broken Hill, comments in his annual report: "There has been a very steady improvement in the general health of the township."

The following table shows the number of cases treated in hospitals during the years 1926, 1927, 1928, 1929:—

	1926.		1927.		1928.		1929.	
	In-patients.	Deaths.	In-patients.	Deaths.	In-patients.	Deaths.	In-patients.	Deaths.
Europeans . .	778	28	923	27	1,045	31	1,078	21
Natives . .	6,534	326	7,400	417	8,449	458	8,874	446

There is very little out-patient treatment at any European hospital except Livingstone, the attendances there being, during the year, 1,565.

The figures given for European out-patients at other stations refer to patients treated at their own homes.

## Native Out-patients.

The following table shows the number of attendances of out-patients at various stations during the year:—

Broken Hill	..	..	..	..	..	9,490
Livingstone	..	..	..	..	..	5,182 (8 months)
Abercorn	..	..	..	..	..	5,105
Mazabuka	..	..	..	..	..	7,348
Ft. Rosebery	..	..	..	..	..	7,509
Mongu	..	..	..	..	..	7,645
Kasama	..	..	..	..	..	8,423
Mpika ..	..	..	..	..	..	1,782
Chinsali	..	..	..	..	..	4,291
Luwingu	..	..	..	..	..	1,044
Chambezi	..	..	..	..	..	582
Nkange (opened 1st October)	..	..	..	..	..	500 (3 months)
Manganje (Rural Dispensary)	..	..	..	..	..	1,693
Njobe ..	..	..	..	..	..	1,191
Mangodi	..	..	..	..	..	1,154

At the following stations records of the numbers of patients only are available:—

Fort Jameson	..	..	..	..	799
Lusaka	..	..	..	..	1,769
Choma ..	..	..	..	..	701
Mpulungu	..	..	..	..	355
Solwezi	..	..	..	..	296

This table shows a very satisfactory increase over last year's attendances at the majority of stations.

The general case mortality rates are :—

	1926.	1927.	1928.	1929.
European .. .. .	3·60%	2·92%	2·97%	1·95%
Native .. .. .	5·00%	5·60%	5·42%	5·03%

## II. COMMUNICABLE DISEASES.

### (a) Insect Borne.

#### SLEEPING SICKNESS.

*Mweru Luapula*.—No cases have been reported from this area.

*Tanganyika areas*.—No cases reported.

*Luangwa Valley*.—The case R. F. H., mentioned in the last report and who underwent treatment both in Lusaka and Southern Rhodesia during the latter part of 1928, was reported to have had a relapse in Southern Rhodesia in October this year. Two Europeans have contracted sleeping sickness in the Luangwa Valley during the year :—

S. A missionary who travelled the postal route between Fort Jameson and Broken Hill.

P.S. Visited and is supposed to have contracted the disease at NyaKanta's Village, on the Serenge—Fort Jameson route, 35 miles from M'soro and 10 miles from the Luangwa River. This is on the route travelled by the first case S.

Natives.—Saide at Abanda, reported by the Medical Officer N'changa, is believed to have contracted the disease on a journey to Tsessare, in the Petauke district, via the Luangwa Valley and Great East Road in November, 1928. He came under observation in 1929.

Native teacher (A) at M'soro Mission, believed to have been infected at Kalongo Malama's Village.

*Bushumane*—a Barotse Native admitted to the Lusaka Hospital. This patient was too ill on admission to give an account of his movements, and died without doing so. There is no evidence to show where the disease was contracted.

*Chilambo at Petros*—a Nyasaland Native reported from Wankie Colliery, Southern Rhodesia, left home in May, 1928, and passed through Isoka, Mpika, Serenge, Mkushi, Broken Hill, Lusaka, Livingstone. He was registered at Wankie on 25th September, 1929. He is known to have spent two months at Lusaka on the journey down. There is no conclusive evidence that the disease was contracted in Northern Rhodesia.

Native (B) at Chitambo Mission—believed to have contracted disease on a journey from M'soro to Serenge.

Native (C) died on the way to Chitambo Mission from the Luangwa Valley—said to have died of sleeping sickness, but not seen by any doctor.

There is evidently a focus of infection on the old Mail Route from Fort Jameson to Broken Hill via Serenge, as five of the above cases were probably infected in the vicinity of this road.

Dr. Gilkes visited 13 villages in the neighbourhood of the Serenge-Fort Jameson Road and found one case of sleeping sickness and one suspected case.

Dr. Acheson made an extensive tour in the Luangwa Valley, during which 7 cases of sleeping sickness were found. He has since reported that two women have been reported to have died in this area of sleeping sickness in addition to the cases seen by him.

Dr. Gilkes' report on his tour of inspection and a report by Mr. E. H. L. Poole, the District Commissioner at Petauke, on the result of the investigations made by himself and Dr. Acheson will be found in the Appendix.

Mr. Poole's report gives a very excellent and concise account of these investigations, and it was largely due to the arrangements made by him that Dr. Acheson was able to tour so much country in the short time at his disposal.

Both Dr. Acheson and Dr. Gilkes were suspicious that some of the sick in the villages they visited were not produced for inspection. Further investigations will be made next year.

#### RELAPSING FEVER.

There were 4 European cases and 24 Native cases, with one death.

It is generally considered that the majority of the Native population acquire immunity during youth.



MALARIA AND BLACKWATER FEVERS (ADMISSION TO EUROPEAN HOSPITALS).

	1926.				1927.				1928.				1929.			
	Malaria.		Blackwater.		Malaria.		Blackwater.		Malaria.		Blackwater.		Malaria.		Blackwater.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Livingstone .. ..	94	-	9	3	90	2	1	-	107	2	6	3	166	1	2	1
Lusaka .. ..	73	1	3	-	76	2	8	4	74	-	1	1	69	-	2	-
Broken Hill .. ..	72	-	9	4	92	1	6	1	106	-	9	1	87	-	-	-
Fort Jameson .. ..	19	-	-	-	13	1	5	-	17	-	1	-	7	-	1	-
Kasama .. ..	4	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-
Mongu .. ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .. ..	262	1	21	7	272	6	20	5	304	2	17	5	330	1	5	1

### MALARIA AND BLACKWATER FEVER (EUROPEANS).

The table above shows a decrease in the admissions for malaria to Lusaka and Broken Hill Hospitals but a large increase at Livingstone Hospital. This may be explained by the increased accommodation at the Livingstone Hospital, which serves a large district and also the arrival of a number of railway employees and their families from the South. This class of settler is unused to tropical conditions and will not adopt any precautions against contracting the disease. During the period under review a number of Europeans were employed in the erection of the Victoria Falls Hotel, and also on the railway bridge. These helped to increase the admission rate at Livingstone.

It is not considered there is any increase in the incidence of malaria in Livingstone itself.

It will be noted that the admission rate for blackwater was very considerably lower than that of the last three years, there being only five admissions with one fatal case.

There were no cases of blackwater treated in the Broken Hill Hospital.

Dr. Leach reports three cases of blackwater at Fort Rosebery, with one death.

Mazabuka one case.

Fort Jameson four cases with two deaths.

Total deaths from blackwater for the Territory, 10.

### (b) Infectious Diseases.

#### INFLUENZA.

167 European cases were reported and 727 Native cases with 105 deaths.

*European.*—Cases exhibiting catarrhal symptoms accompanied by fever and sore throat occur amongst the European population throughout the year but are more prevalent during the winter months. The disease usually is mild in type but convalescence is prolonged, and if lung complications occur the illness at once assumes a more serious and dangerous character.

*Native.*—Cases of catarrh with fever are usually labelled influenza. This so-called influenza is a very serious disease. It is extremely infectious and the mortality rate is very high. Deaths usually result from pneumonia of the lobular type, but may occur quite early in the disease from heart failure. The temperature chart usually shows a series of elevations, with periodical intermissions. These elevations correspond with the infection of different portions of the lung. Treatment is most disappointing; a patient may survive a dangerous period and appear to be doing well when a further focus of infection sends up the temperature and causes a fatal termination. Natives who have travelled long journeys frequently arrive at Livingstone in an emaciated condition and are very prone to the disease. Those from Balovale, Mankoya, and Portuguese territory show little or no resistance to influenza and its complications or any form of lung disease. A large number of patients admitted to Livingstone are infected with hookworm, and this may account for the emaciated condition on admission. The type of pneumonia is usually lobular and the mortality rate is high. Dr. McGregor, Medical Officer, Lusaka, reports a sharp epidemic of lobar pneumonia amongst natives during the spring and early summer months, there being 29 cases with 4 deaths. Lobar pneumonia seems more prevalent at Lusaka than elsewhere, the more general type being lobular.

Influenza and pneumonia are the chief factors in the mortality rate of the Native population. Each year these diseases levy a heavy toll on young adult lives, and call for special investigation.

#### SMALL POX.

Small Pox was prevalent during the year in many districts but towards the end of the year seemed on the wane. There was only one European case, but 2,562 Native cases were notified with 243 deaths, giving a mortality rate of 9.52%.

1,303 cases were notified at Alastrim with 59 deaths. This gives a total of 3,855 cases with 302 deaths and a mortality rate of 7.83%.

The figures given are mostly gained from Native sources and it is believed that the death rate from small pox is not actually as high as the figures suggest. During an epidemic of small pox it is known that deaths which actually occur from other causes are ascribed to small pox.



Along the Railway Strip there have been few cases and the disease has been well under control. A few cases occurred at Ndola, but, though there were about 4,000 Natives in employment, their energetic vaccination prevented an epidemic. The disease was most prevalent in the Fort Jameson and Kasama Districts. In the Fort Jameson area the disease was unusually severe and widespread, every part of the district being affected, the reported mortality rate being high.

A severe epidemic was reported in the Lundazi District at the latter end of the year, but on investigation it was found that the type was less severe than at first reported; in fact, the missionaries living at Chasefu considered the death rate from small pox was low and that many of the deaths reported as being due to small pox were actually due to other causes, e.g. whooping cough and its complications, which was also prevalent at the same time. The disease was widely spread in the Kasama, Luingu, and Chinsali Districts, but the medical officer at Abercorn reported that, though it was prevalent in the Awemba portion of the district, it did not assume epidemic form and was a mild type and the mortality rate was not high.

The Fort Rosebery District was reported clean.

The Medical Officer, Mongu, reported that there was a mixed variola alastrim epidemic in every district of the Province, there being 431 cases with 17 deaths.

The same difficulty in dealing with outbreaks in districts off the main routes of communication was experienced as in previous years, viz. the regular supply of vaccine lymph in an active condition. Special messengers with bicycles were employed for this purpose.

#### EPIDEMIC. CEREBRO SPINAL MENINGITIS.

The incidence of this disease appears to be on the increase; 100 Native cases were reported with 74 deaths. The disease occurred in different parts of the territory, but did not assume epidemic proportions except in the Lumbe River area of the Nalolo District, where there were 20 cases.

#### TYPHUS FEVER.

Three cases were reported in Livingstone—two Europeans and one Native. The Europeans resided in the Railway residential area in Livingstone and the Native came from a timber camp some 40 miles distant, his movements prior to admission to hospital being unknown. All the cases terminated fatally and within a few days of each other. One European had a typical rash and there was a less marked rash in the Native case. They were seen by three medical officers, who all were in agreement as to the diagnosis. The cases were very carefully investigated. Specimens of organs and slides were examined both in Livingstone and at the South African Institute for Medical Research, but no infective organism was found nor was any other cause of death revealed. There had been a suspiciously high death rate in the timber camp and very drastic precautions were taken both at that camp and at Livingstone.

European and Native quarters and bedding and clothing were destroyed by fire where it was impossible to disinfect owing to the nature of the buildings, and no further cases occurred.

#### SCARLET FEVER.

One case occurred at Mongu.

The occurrence of isolated cases of scarlet fever in different parts of the territory from time to time is remarkable.

#### RABIES.

There were outbreaks of animal rabies in the Mazabuka, Monze, and Choma Districts. Five Europeans were bitten by rabid dogs at Mazabuka and received Pasteur treatment.

#### TETANUS.

Two Native cases of tetanus were treated at Mazabuka. One case had been ill for too long for treatment to have any effect and he died shortly after admission. The second case improved under treatment by intra-theal and subcutaneous injections but absconded before treatment was completed.

A European sergeant of the Northern Rhodesia Police Force died of tetanus while on duty with the cattle cordon at Barotse. The country was flooded at the time and Dr. Reutter only reached the patient just after his death, but there seems no reason to doubt that the officer died of tetanus.

Tetanus is rare in Northern Rhodesia. Only one other case is known to have occurred in the last twenty years.

## LEPROSY.

The following table shows the number of cases reported as at 31st December, 1929, and their distribution :—

Kasama	..	..	..	..	..	61
Chinsali	..	..	..	..	..	86
Luwingu	..	..	..	..	..	126
Mpika	..	..	..	..	..	85
Mongu—Lealui	..	..	..	..	..	717
Balovale	..	..	..	..	..	457
Mankoya	..	..	..	..	..	240
Nalolo	..	..	..	..	..	260
Sesheke	..	..	..	..	..	414
Mazabuka	..	..	..	..	..	180
Livingstone	..	..	..	..	..	228
Kalabo	..	..	..	..	..	844
Kalomo	..	..	..	..	..	210
Port Jameson	..	..	..	..	..	284
Lundazi	..	..	..	..	..	27
Petauke	..	..	..	..	..	90
Lusaka	}	..	..	..	..	41
Chilanga						
Feira	..	..	..	..	..	55
Mumbwa	..	..	..	..	..	80
Namwala	..	..	..	..	..	71
Kasempa	..	..	..	..	..	38
Mwinilunga	..	..	..	..	..	13
Solwezi	..	..	..	..	..	152
Broken Hill	..	..	..	..	..	61
Mkuchi	..	..	..	..	..	47
Ndola	..	..	..	..	..	126
Serenje	..	..	..	..	..	37
Fort Rosebery	..	..	..	..	..	149
Kawanbwa	..	..	..	..	..	29
Chiengi	..	..	..	..	..	24
Abercorn	..	..	..	..	..	140
Isoka	..	..	..	..	..	50
Mporokoso	..	..	..	..	..	34
						5,516

Lepers reported as at 31st December, 1928, 5,270 ; increase on 1928, 246.

At all Government Medical Stations the treatment of leprosy is given, but as the majority of the Native hospitals are in the proximity of European settlements it is obvious that the conditions are not favourable to the establishment of leper colonies, which, if they are to prove attractive to Native sufferers, must assimilate as closely as possible to conditions of village life and the patients be encouraged to cultivate gardens and grow their own food-stuffs and relishes.

The following Missionary Societies undertake the treatment of leprosy, and where there is no resident doctor the work is carried out by trained nurses and lay workers. Many of these societies received grants-in-aid and supplies of Alepol from the Government and the British Empire Leprosy Relief Association :—

Dutch Reform Church Missionary Society	..	..	Nsadru Leper Colony.
			Dr. Korobel.
Seventh Day Adventist Missionary Society	..	..	Nwami Leper Colony.
			Dr. Marais.
South African General Missions	..	..	Kabe Hill Leper Colony.
			Dr. Watney.
Christian Missions	..	..	Kalene Hill. Dr. Fisher.
Paris Missionary Society	..	..	Sesheke. Dr. Reutter.
Paris Missionary Society	..	..	Lealui.



LEPROSY (*continued*).

Paris Missionary Society	..	..	..	Chitokoloki.	
London Missionary Society	..	..	..	Kawimbi	} Abercorn district.
London Missionary Society	..	..	..	Niamkolo	
French Fathers	..	..	..	{ Rosa.	
				{ Kapatu.	
Revd. Sammond	..	..	..	Johnstone Falls.	
Mr. Skinner	..	..	..	Kafulafula Mission.	
Father Julian	..	..	..	Minga Mission.	
Revd. Merrill	..	..	..	Kabanga Mission.	
				Liumbe Hill Mission.	
				Katondwe Mission, Feira.	
Nurse Keysteres	..	..	..	Kasenga Mission.	
Dr. Gerrard	..	..	..	Namwala Mission.	
				Musefu Mission.	
				Nambala Mission.	
U.F. Church Mission	..	..	..	Mwenzu. Dr. Chisholm.	
Dr. Wareham	..	..	..	Nbereshi Mission.	
Revd. D. Gray	..	..	..	Chipembi Mission.	
				Chitambo Mission.	

It was hoped to visit many of these stations during the year, but this was found to be impossible. It is important that these centres should be visited and personal knowledge gained of the scope of the work that can be undertaken and the best method of aiding and expanding it.

## Enteric Group.

## HOSPITAL ADMISSIONS—1927, 1928, AND 1929.

	1927.				1928.				1929.			
	European. Cases Deaths		Native. Cases Deaths		European. Cases Deaths		Native. Cases Deaths		European. Cases Deaths		Native. Cases Deaths	
Livingstone ..	15	2	4	2	6	—	3	1	5	—	5	5
Broken Hill ..	1	1	8	3	2	—	4	4	2	—	1	1
Lusaka ..	—	—	—	—	2	—	—	—	4	—	1	1
Ndola ..	—	—	—	—	—	—	—	—	—	—	2	2
Mazabuka ..	—	—	—	—	—	—	—	—	—	—	2	1
	16	3	12	5	10	—	7	5	11	—	11	10

## (c) Helminthic Disease.

## ANKYLOSTOMIASIS.

It would appear from the reports received from the various Medical Officers that infection with hookworm is commoner amongst the Natives admitted to the Livingstone Hospital than elsewhere. These Natives come from Portuguese territory and from the Balovale, Mankoya, Kalabo, Nalolo districts and Barotseland. The examination of the stools of a large number of patients admitted to the Livingstone Hospital is carried out, but no attempt has been made to classify the results according to the district from which the patients come, and this investigation seems called for.

Dr. Wallace, of Broken Hill, reports: "Ankylostomiasis does not appear to be of economic importance, a heavy infection being seldom found."

Dr. Kinghorn, Abercorn: "Disease due to helminths is not of common occurrence. In one or two districts ankylostomiasis and bilharziasis are said to occur but no cases of these infections have been treated at Abercorn. They are of greater frequency in the neighbourhood of Kawimbe Mission and a number of cases have been treated there."

Dr. Leach, Port Rosebery: "Two cases of tape-worm were seen. Of all the Natives passing the Medical Officer, no cases of anaemia that were not explicable on other grounds than helminthic disease were seen."

**B. VITAL STATISTICS.****(I) General Native Population.**

Estimated Native population, 1929, 1,298,651, an increase of 36,679, or 2·91%, over 1928.

District officers have prepared careful statistics of the birth, death, and infantile mortality rates of a group of 579 villages with a total population of 46,479 as follows :—

Total births (male), 1929 .. .. .	1,370
Total births (female), 1929 .. .. .	1,604
<hr/>	
Total births, 1929 .. .. .	2,974
Number of deaths of infants under the age of one year .. .. .	624

Infantile mortality rate per 100 births, 20·98.

Between the ages of one and two years there were 482 deaths, which gave a total death rate of 37·8% on births for children under two years.

Registration is not compulsory, and it is therefore not possible to compile vital statistics owing to lack of exact data.

**(II) General European Population.**

European population, 1929 .. .. .	9,981
Increase over 1928 .. .. .	2,445
Percentage increase over 1928 .. .. .	32·44
Deaths registered, 1929 .. .. .	93
Decrease from 1928 .. .. .	4
Death rate per 1,000 (1929) .. .. .	9·32
Death rate per 1,000 (1928) .. .. .	12·87
Number of deaths of infants under one year of age .. .. .	21

**EUROPEAN BIRTHS.**

European births, 1928 :	
Males .. .. .	97
Females .. .. .	98
<hr/>	
	195
Birth rate per 1,000 .. .. .	25·8
European births, 1929 :	
Males .. .. .	111
Females .. .. .	100
<hr/>	
	211
Birth rate per 1,000 population .. .. .	21·14

The causes of deaths of infants were :

Enteritis .. .. .	4
Convulsions .. .. .	3
Premature birth .. .. .	3
Inanition .. .. .	2
Dysentery .. .. .	1
Malaria .. .. .	1
General debility .. .. .	1
Inflammation .. .. .	1
Capillary Bronchitis .. .. .	1
Double Bronchial Pneumonia .. .. .	1
Cerebral Haemorrhage .. .. .	1
Birth injury .. .. .	1
Natural causes .. .. .	1
<hr/>	
	21
<hr/>	

When a medical certificate is not available, the cause of death, as also in the following table by the Registrar, is supplied by the nearest relative.,



TABLE III.

	<i>European.</i>	<i>Africans.</i>
Number of inhabitants in 1929 ..	9,981 ..	1,298,651
Number of births during 1929 ..	211 ..	—
Number of deaths during 1929 ..	93 ..	—
Number of Immigrants .. ..	1,834 ..	1,046
Number of Emigrants .. ..	No figures available.	
Number of inhabitants in 1928 ..	7,526 ..	1,261,972
Increase .. ..	2,455 ..	36,679

There were 19 Asiatic immigrants during the year.

TABLE A.

Causes of deaths (European) :	<i>Number.</i>	<i>% of Total.</i>
Enteric Fever .. ..	4 ..	4·30
Typhus Fever .. ..	2 ..	2·15
Malaria .. ..	1 ..	1·08
Blackwater .. ..	10 ..	10·75
Dysentery .. ..	1 ..	1·08
Tetanus .. ..	1 ..	1·08
Tuberculosis .. ..	3 ..	3·23
Phthisis .. ..	1 ..	1·08
Acute Septicaemia .. ..	1 ..	1·08
Cancer .. ..	4 ..	4·30
General debility .. ..	2 ..	2·15
Meningitis .. ..	1 ..	1·08
Cerebral Haemorrhage .. ..	3 ..	3·23
Convulsions .. ..	4 ..	4·30
Heart affections .. ..	11 ..	11·83
Capillary Bronchitis .. ..	1 ..	1·08
Broncho Pneumonia .. ..	3 ..	3·23
Pneumonia .. ..	4 ..	4·30
Oedema Lungs .. ..	1 ..	1·08
Diarrhoea and Enteritis .. ..	4 ..	4·30
Jaundice .. ..	1 ..	1·08
Peritonitis .. ..	1 ..	1·08
Haemorrhage of Intestines .. ..	1 ..	1·08
Nephritis .. ..	1 ..	1·08
Inanition .. ..	2 ..	2·15
Birth injury .. ..	1 ..	1·08
Premature birth .. ..	3 ..	3·23
Suicide .. ..	1 ..	1·08
Snake Bite .. ..	1 ..	1·08
Injury by fire .. ..	2 ..	2·15
Asphyxia .. ..	1 ..	1·08
Accidental drowning .. ..	4 ..	4·30
Gun-shot wounds .. ..	2 ..	2·15
Killed by elephant .. ..	1 ..	1·08
Sun-stroke .. ..	1 ..	1·08
Fractured Pelvis .. ..	1 ..	1·08
Killed in machinery .. ..	3 ..	3·23
Natural causes .. ..	3 ..	3·23
Eclampsia .. ..	1 ..	1·08

TABLE B.  
SHOWING EUROPEAN DEATH RATE PER 1,000 POPULATION FROM MALARIA, BLACKWATER  
FEVER, TOTAL CLIMATIC, AND TOTAL ALL CAUSES FOR 20 YEARS.

Year.	Total Climatic.	Blackwater.	Malaria.	Total All Causes.
1909-10.. ..	23.30	18.20	3.80	37.42
1910-11.. ..	8.40	7.70	1.80	27.87
1911-12.. ..	10.50	6.60	3.60	25.20
1912-13.. ..	10.50	5.70	2.60	23.68
1913-14.. ..	8.69	6.08	2.60	18.70
1914-15.. ..	6.60	5.70	.40	20.40
1915-16.. ..	9.28	4.64	1.85	18.11
1916-17.. ..	5.08	3.23	.92	18.93
1917-18.. ..	3.75	2.80	.83	17.80
1918-19.. ..	5.20	2.00	2.40	28.40
1919-20.. ..	2.80	2.40	—	12.80
1920-21.. ..	5.80	2.70	1.80	15.40
1921-22.. ..	4.12	2.75	.82	14.30
1922-23.. ..	5.20	3.40	1.05	13.42
1924 .. ..	2.70	1.80	.45	9.04
1925 .. ..	2.82	1.52	1.30	13.70
1926 .. ..	2.86	2.14	.71	11.10
1927 .. ..	2.88	1.23	1.10	9.89
1928 .. ..	3.58	2.65	.53	12.87
1929 .. ..	1.20	1.00	.10	9.32

EUROPEAN DEATHS SHOWING AGE PERIODS.

Year.	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85	85-95	Un- known	Totals
1927 ..	18	4	3	7	9	7	13	4	5	—	—	2	72
1928 ..	15	2	3	11	14	19	18	9	4	1	—	1	97
1929 ..	21	5	4	12	12	4	13	13	3	1	1	4	93

(III) European Officials.

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATES OF EUROPEAN OFFICIALS.

	1927.	1928.	1929.
Total number of Officials resident .. ..	429	446	515
Average number resident .. ..	372	372	429
Total number on sick list .. ..	72	175	184
Total number of days on sick list .. ..	1,054	1,587	1,916
Average daily number on sick list .. ..	2.88	4.34	5.25
Percentage of sick to average number of residents ..	0.77	1.17	1.22
Average number of days on sick list for each patient	14.60	9.07	10.41
Average sick time to each resident .. ..	2.83	4.27	4.47
Total number invalided.. ..	2	2	6
Percentage of invalidings to each resident .. ..	.46	.45	1.16
Total deaths .. ..	4	2	4
Percentage of deaths to total residents .. ..	.93	.45	.78
Percentage of deaths to average number of residents	1.07	.54	.93
Number of cases of sickness contracted away from residence .. ..	Not known.		



The causes of death were as follows :—

1. Cerebral Haemorrhage.
2. Acute infective jaundice.
3. Wounds self-inflicted.
4. Tetanus.

While the general health of European Officials remains on the whole satisfactory, the average daily number on the sick list has gone up, as also the number of officers invalidated.

The conditions of service from a health point of view are less favourable than formerly.

Motor transport has to a very large extent superseded the more healthy trek with carriers, and the active development of the country has increased the work and responsibility of the majority of officials, but especially the senior ones. Signs of stress and strain are often noticeable where no complaint is made, and there can be no doubt that many of the senior officials have been taxed to their utmost capacity to meet the demands put upon them by the increased work occurring in most departments, resulting from the very rapid development of the Territory and the increasing population.

The prospective removal of the Administrative Headquarters from Livingstone and the necessity for erecting the essential public buildings to meet altered conditions have made it impossible to provide adequate and suitable house and office accommodation for officials.

It is also somewhat doubtful if junior officials—to many of whom tropical conditions are strange—are as strict about the daily dose of quinine as formerly, when its use was universal and the incidence of malaria rare amongst the civil service.

These factors are reflected in the statistics of the health of the European officials.

#### (IV) Native Officials.

Register B, as mentioned in the Model Report (Miscellaneous 375), does not appear to have been kept. It is, therefore, impossible to compile the above table for Native officials. Steps will be taken to ensure this register being kept, in order that the proper records may be available for future reports.

### SECTION III.

#### HYGIENE AND SANITATION.

##### (a) GENERAL.

An appointment of a special officer to advise on Health matters, the site of the new Capital, and to organise a Sanitation Service has been approved, and the officer appointed sailed from England during December.

The year under review has been a period of great activity in the Northern Mining area. New townships have sprung into existence and a large population of Europeans and natives attracted to these mining centres.

During the construction stage of these townships sanitation methods were necessarily primitive and in most of the contractors' camps non-existent.

The lack of a Government Sanitation Service is unfortunate. No adequate sanitary supervision could be exercised. The Mining Companies, however, were fully aware of the importance of proper health and sanitation conditions, and in most of the mining townships approved sanitation schemes were under construction before the end of the year and every effort was made to provide pure water supplies and suitable housing conditions for all classes of employees.

A commission, under Sir William Simpson, to investigate and advise on health matters and inaugurate anti-malarial schemes, in the interest of the Mining Companies, arrived in October, and before the end of the year these schemes were in the course of construction.

Another mining group obtained the services of a sanitation expert from the Rand to advise on sanitation matters.

This department was not informed of the appointment of this Commission, and no information is available other than what has appeared in the public press.

The township at Ndola, owing to its very rapid development, presented special problems. Adjacent to the Government township a privately owned farm was divided into plots, and soon became a second township, known as Manners' township, not under the control of the Ndola Management Board. The two combined townships occupied an area of some 2,500 acres situated in thick forest. Contractors employing large gangs of Natives came and camped within this area, and a large community of poor whites was scattered about in the forest.

In June, the Government subsidized the services of a private practitioner, who arrived to commence practice at Ndola, to supervise sanitation and act as Medical Officer. The portion of Manners' township adjacent the Government townsite was placed under the control of the Management Board, but conditions remained most unsatisfactory throughout the year.

This station was visited in July, but the time spent there was limited, as instructions were received, just before leaving Livingstone, to inspect and report on the conditions in the mining areas. This inspection occupied nearly the whole period that was available for the tour. It was found that the banks of the Itawa river were so polluted as to make the town's water supply a menace to the public health. No chlorination plant was available in South Africa, and, as the matter was urgent, a temporary water supply was conducted from the Kansenje Stream, five miles distant, to stand pipes in the township.

The township was again visited in September, and His Excellency the Governor and the Principal Medical Officer met the Management Board in October to discuss sanitation matters, and Government advanced the money necessary for purchasing the necessary sanitary transport equipment.

The needs of the township and the Ndola area necessitate the employment of a whole-time health officer and the necessary staff. It will be realised that the provision of adequate sanitation services and a proper water supply to inhabitants scattered over a large area present much difficulty. There is a marked improvement in the sanitary conditions of the other large centres along the railway strip. The employment of sanitary overseers by the railway company at Livingstone and Broken Hill in the railway residential areas has resulted in a marked improvement in the sanitation in these areas. The improved conditions at Broken Hill due to the supervision of the Senior Medical Officer, Dr. Wallace, and an energetic sanitary inspector, Mr. Pullon, are especially noticeable.

#### (I) PREVENTIVE MEASURES.

##### Mosquito and Insect-borne Diseases.

##### MALARIA.

The measures that the mining companies are taking to control malaria have been referred to above. The measures undertaken elsewhere are under the control of Municipalities or Management Boards, and on Out-Stations Government Medical Officers or District Officers. They consist of bye-laws making the breeding of mosquitoes an offence, clearing of bush and undergrowth, drainage and general sanitation.

Regular inspections are made by Government medical officers. Some of the Government houses are screened, but only in the more recent houses can this screening be said to be effective against the entrance of mosquitoes. A preventive measure formerly adopted by most of the more intelligent European population, viz. the daily prophylactic dose of quinine, has lately been called in question. The more recently arrived mine medical officers are not in favour of this measure, and a section of the public, especially the less intelligent, have given up the practice. In Northern Rhodesia all the older medical practitioners have learnt by experience that as far as this territory is concerned the prophylactic dose of quinine is of great value, and, providing other precautionary measures are taken, especially the use of mosquito nets, a regular taker of quinine has little to fear from malaria. It is not maintained that in the presence of unfavourable conditions a 5-grains dose will entirely prevent malaria, but there is no doubt that it will enable the settler living under the ordinary conditions pertaining to the territory to enjoy good health, and the danger of an attack of blackwater fever is remote.

When the anti-malaria measures now under course of construction have banished anophelene mosquitoes from the areas in which this work is being undertaken, the prophylactic dose of quinine can be discarded, but for the present it is considered the disuse of a



preventive measure, the value of which has been proved by many years' experience, is disastrous.

The incidence of malaria in the settled areas along the Railway Strip still remains high, and it is considered that an investigation into the causes and prevention of this disease by an officer with malarial experience should be made.

#### TRYPANOSOMIASIS.

Clearings have been made at all the principal river crossings on the Great East Road. Hunting is prohibited in the Luangwa Valley, and a pamphlet is issued to travellers in this area, giving instructions concerning precautions which should be taken.

Clearings at the villages in the Tanganyika territory sleeping sickness area are carried out on the same lines as in previous years.

#### Epidemic Disease.

In view of the heavy expenditure entailed in dealing with the epidemic of small pox last year, vaccination was curtailed during the current year and in the main restricted to infected areas.

The following are the figures for vaccination at the principal centres :

Livingstone .. .. .	11,401
Fort Rosebery .. .. .	15,568
Mongu .. .. .	14,207
Abercorn .. .. .	6,317
Luwingu .. .. .	3,820
Ndola .. .. .	3,795
Chinsali .. .. .	3,039
Kasama .. .. .	333

#### DYSENTERY.

Precautions are taken to ensure a pure water supply for domestic purposes, and the additional precaution of boiling drinking water is adopted almost universally.

#### ENTERIC FEVER.

As above. Stricter supervision of food supplies is necessary, but in the absence of a sanitation service no regular system of inspection can be undertaken. A large proportion of the milk supply is received from native sources ; this is usually sterilised by boiling by the consumer or native cook. Any drastic legislation concerning the milk supply would have the effect of cutting off the supply of a large number of the population and depriving the native of the profit of one of the very few commodities he can offer for sale.

#### HELMINTHIC DISEASES.

Little has been done in the way of preventive measures, but from the reports received from medical officers it would appear that at present these diseases have not been considered to seriously affect the health of the native population. The investigations made at Livingstone, however, show that a large proportion of the Natives admitted suffer from helminthic diseases. The matter requires further investigation, and it is possible the importance of these diseases has been under-estimated.

#### (II) GENERAL MEASURES OF SANITATION.

The system of sanitation through the territory remains as before. On the whole it functions satisfactorily but the country has reached a stage of development at which a Sanitation Service is an urgent necessity.

Medical Officers and District Officers at out-stations complain that, owing to the higher rate of wages prevailing and the scarcity of prison labour, the provision for maintenance and clearing of stations is no longer adequate.

*Fort Rosebery.*—The health of this station has not been satisfactory, and the Medical Officer reports the prevalence of mosquitoes all the year round. There is a swamp in the centre of the residential area which floods when the river rises. This swamp being at the same level as the river cannot be drained.

The housing conditions of the officials are unsatisfactory; the quarters are not screened, and timber used in construction has warped, rendering screening impossible.

The river bed is rocky, and as the river falls forms ideal conditions for the breeding of mosquitoes. Intensive clearing of all bush, undergrowth, and old decayed trees was recommended by the Senior Medical Officer, and this work has now been carried out.

### (III) SCHOOL HYGIENE.

#### Medical Inspection of Schools.

Inspections were carried out by the medical officers. The Principal Medical Officer also visited the boarding school twice during the year and most of the other schools. Special attention was paid to the sanitation of the school grounds and the adjacent land, and recommendations were made for increased vegetable, fruit, and milk allowances. These recommendations have been carried out.

It was again noted that the physical condition of the boarders compared favourably with that of the day scholars.

#### School Dental Inspection and Treatment.

All schools were inspected twice during the year by dentists subsidised by the Government.

Again it is necessary to comment on the failure of the parents to avail themselves of the facilities for treatment offered.

### (IV) LABOUR CONDITIONS.

#### Recruitment.

The general conditions of recruitment and repatriation remain as before.

Medical examination of all recruited labour is carried out by a Government Medical Officer or a medical practitioner approved by the Governor on behalf of the Native and the Government rather than the employer, with the object of eliminating those unfit for the type of work required and of allotting those passed as physically fit to the type of work considered most suitable.

Recruiting on a large scale for the Northern Mines will be undertaken in the near future by the Northern Rhodesia Labour Agency, which has been formed for the purpose.

It is proposed to use motor transport to convey the recruits from their villages to the central depot.

The measures taken for safeguarding the health of recruits will need revision to meet altered conditions, but the general principles which have governed the measures taken in the past will be adhered to and the interest of the Native will receive first consideration.

The Employment of Natives Ordinance enacted at the November session of the Legislative Council renders it compulsory for all employers of Native labour to provide suitable housing and medical treatment for Native employees. The mining area was visited in July and all mining centres in this area were inspected. A report on the health conditions was submitted.

The mining centres were then in a stage of transition; new compounds and Native hospitals were in the course of construction and it was evident that the mining companies were fully alive to the importance of, and taking measures to ensure, the proper housing and medical treatment of the Native employees. The health conditions of contracted labour were unsatisfactory and sanitation was almost entirely non-existent in contractors' compounds. Serious cases of illness did not receive attention sufficiently early, and generally there was a lack of proper medical supervision. Steps have been taken to ensure proper medical attention for all classes of Native employees, and when a Sanitation Service is available frequent inspections will be made.

The Health and Mortality Returns furnished by the Mining Companies do not give sufficiently accurate detail to enable useful statistics to be made and an amended form of these returns has been recommended. The whole question of Native labour in the copper belt is under consideration and amended regulations are being drawn up.



The following tables show the incidence of sickness, and the mortality rates of Natives employed on the various mines, as revealed by the hospital returns. It is satisfactory to note that only four cases of scurvy are shown, and the mortality rate per thousand shows a much lower figure than for last year for each mine :—

	1928.	1929.
Broken Hill .. ..	15.50	9.51
Bwana M'Kubwa ..	20.00	17.59
N'Changa .. ..	15.60	8.15
Roan Antelope ..	38.00	17.74
N'Kana .. ..	—	10.74

There was an epidemic of enteric on the Roan Antelope Mine, but the water supply was under suspicion. This has since been purified by chlorination and is now on a satisfactory footing, and a water-borne sewage system is being installed.

#### UNSPECIFIED DISEASES.

	Chest.		Intestinal.		Others.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Broken Hill ..	—	—	—	—	—	—
Bwana M'Kubwa	3	—	1	1	—	—
N'Kana ..	16	—	4	—	—	—
Roan Antelope..	135	4	5	3	233	12
N'Changa ..	13	1	5	—	—	—

#### MALARIA.

	Number of cases.	Deaths.	Mortality rate per cent.	Incidence per mille.	Death rate per mille.
Broken Hill ..	—	—	—	—	—
Bwana M'Kubwa	541	—	—	317.31	—
N'Kana .. ..	148	—	—	79.53	—
Roan Antelope ..	74	1	1.35	15.23	.21
N'Changa ..	2	—	—	2.04	—

#### INFLUENZA.

	Number of cases.	Deaths.	Mortality rate per cent.	Incidence per mille.	Death rate per mille.
Broken Hill ..	435	—	—	159.11	—
Bwana M'Kubwa	229	6	2.62	134.31	3.52
N'Kana .. ..	75	1	1.33	40.30	.54
Roan Antelope ..	1	1	100.00	.21	.21
N'Changa ..	23	1	4.35	23.42	1.02

#### PNEUMONIA.

	Number of cases.	Deaths.	Mortality rate per cent.	Incidence per mille.	Death rate per mille.
Broken Hill ..	27	16	59.26	9.88	5.85
Bwana M'Kubwa	69	9	13.04	40.47	5.28
N'Kana .. ..	62	10	16.13	33.32	5.37
Roan Antelope ..	138	44	31.88	28.40	9.05
N'Changa ..	7	2	28.57	7.13	2.04

## MAJOR ACCIDENTS.

	Number of cases.	Deaths.	Mortality rate per cent.	Incidence per mille.	Death rate per mille.
Broken Hill ..	6	3	50·00	2·19	1·09
Bwana M'Kubwa	7	1	14·88	4·11	·58
N'Kana .. ..	8	2	25·00	4·29	1·08
Roan Antelope ..	10	4	40·00	2·06	·82
N'Changa ..	3	1	33·33	3·05	1·02

## BROKEN HILL MINE (1929).

Daily average Natives employed, 2,734 (including Contractor's Labour).

	Cases treated.	Deaths.	Mortality Cases per cent	Sickness incidence rate per mille employed.	Death rate per mille employed.
Typhoid Fever .. ..	2	2	100·00	·73	·73
Small Pox .. ..	1	—	—	·36	—
Influenza .. ..	435	—	—	159·11	—
Dysentery .. ..	1	—	—	·36	—
Yaws .. ..	3	—	—	1·09	—
Chicken Pox .. ..	3	—	—	1·09	—
Syphilis .. ..	17	—	—	6·22	—
Gonorrhoea .. ..	3	—	—	1·09	—
Trypanosomiasis .. ..	1	—	—	·36	—
Scurvy .. ..	1	—	—	·36	—
Splenic Abscess .. ..	4	2	50·00	1·46	·73
Onyala .. ..	1	—	—	·36	—
Paralysis .. ..	1	1	100·00	·36	·36
Insanity .. ..	1	—	—	·36	—
Conjunctivitis .. ..	17	—	—	6·22	—
Epilepsy .. ..	3	—	—	1·09	—
Earache .. ..	1	—	—	·36	—
Phlebitis .. ..	7	—	—	2·56	—
Pneumonia .. ..	27	16	59·26	9·88	5·85
Diarrhoea .. ..	5	—	—	1·82	—
Pyelitis .. ..	1	1	100·00	·36	·36
Abscesses .. ..	16	1	6·25	5·85	·36
Tropical Ulcers .. ..	60	—	—	21·95	—
Major accidents .. ..	6	3	50·00	2·19	1·09
Minor accidents .. ..	137	—	—	50·11	—
Totals .. ..	754	26	3·45	275·70	9·48

Deaths from "Major accidents" were:

Crushed in machinery .. ..	2
Fell down shaft .. ..	1
	—
	3
	—



## BWANA M'KUBWA MINE (1929).

Daily average Natives employed, 1,705.

	Cases treated.	Deaths.	Mortality Cases per cent	Sickness incidence rate per mille employed.	Death rate per mille employed.
Malaria .. ..	541	—	—	317·31	—
Small Pox .. ..	1	1	100·00	·58	·58
Influenza .. ..	229	6	2·62	134·31	3·52
Dysentery .. ..	4	—	—	2·35	—
Chicken Pox .. ..	19	—	—	11·14	—
Syphilis .. ..	3	—	—	1·76	—
Gonorrhoea .. ..	1	—	—	·58	—
Onyalai .. ..	2	—	—	1·17	—
Meningitis .. ..	5	4	80·00	2·93	2·35
Conjunctivitis .. ..	42	—	—	24·63	—
Keratitis .. ..	1	—	—	·58	—
Heart Disease .. ..	1	1	100·00	·58	·58
Haemorrhoids .. ..	1	—	—	·58	—
Glaucoma .. ..	4	—	—	2·35	—
Bronchitis .. ..	4	—	—	2·35	—
Pneumonia .. ..	69	9	13·04	40·47	5·28
Diarrhoea .. ..	12	2	16·67	7·04	1·17
Appendicitis .. ..	1	—	—	·58	—
Tropical Bubo .. ..	5	—	—	2·93	—
Lymphangitis .. ..	130	—	—	76·25	—
Pyorrhoea .. ..	1	—	—	·58	—
Peritonitis .. ..	2	2	100·00	1·17	1·17
Laryngitis .. ..	14	—	—	8·21	—
Gangrene Leg .. ..	2	1	50·00	1·17	·58
Boils .. ..	2	—	—	1·17	—
Tropical Ulcers .. ..	49	1	2·04	28·74	·58
Snake Bite .. ..	3	—	—	1·76	—
Major accidents .. ..	7	1	14·28	4·11	·58
Minor accidents .. ..	199	—	—	116·71	—
Debility .. ..	1	1	100·00	·58	·58
Chest diseases not mentioned above .. ..	3	—	—	1·76	—
Intestinal diseases not men- tioned above .. ..	1	1	100·00	·58	·58
Totals .. ..	1,359	30	2·21	797·07	17·59

## ROAN ANTELOPE COPPER MINE (1929).

Daily average Natives employed, 4,859 (including Contractors' Labour).

	Cases treated.	Deaths.	Mortality Cases per cent.	Sickness incidence rate per mille employed.	Death rate per mille employed.
Enteric .. .. .	16	4	25·00	3·29	·82
Malaria .. .. .	74	1	1·35	15·23	·21
Influenza .. .. .	1	1	100·00	·21	·21
Dysentery .. .. .	11	8	72·73	2·26	1·64
Pulmonary Tuberculosis ..	1	1	100·00	·21	·21
Syphilis .. .. .	9	—	—	1·85	—
Septicaemia .. .. .	1	1	100·00	·21	·21
Scurvy .. .. .	2	—	—	·41	—
Splenic Abscess .. .. .	1	1	100·00	·21	·21
Meningitis .. .. .	1	1	100·00	·21	·21
Heart Disease .. .. .	1	—	—	·21	—
Pneumonia .. .. .	138	44	31·88	28·40	9·05
Diarrhoea .. .. .	50	1	2·00	10·29	·21
Major accidents .. .. .	10	4	40·00	2·06	·82
Minor accidents .. .. .	983	—	—	202·30	—
Debility .. .. .	11	—	—	2·26	—
Chest Diseases not mentioned above .. .. .	135	4	2·96	27·79	·82
Intestinal Diseases not men- tioned above .. .. .	5	3	60·00	1·03	·62
Other Disease unspecified ..	233	12	5·15	47·95	2·47
	1,683	86	5·11	346·37	17·74



## NCHANGA MINE (1929).

Daily average Natives employed, 982.

	Cases treated.	Deaths.	Mortality Cases per cent.	Sickness incidence rate per mille employed.	Death rate per mille employed.
Malaria .. .. .	2	—	—	2·04	—
Small Pox .. .. .	10	—	—	10·18	—
Influenza .. .. .	23	1	4·35	23·42	1·02
Yaws .. .. .	8	—	—	8·15	—
Syphilis .. .. .	4	—	—	4·07	—
Sleeping Sickness .. .. .	1	—	—	1·02	—
Splenic Abscess .. .. .	1	1	100·00	1·02	1·02
Insanity .. .. .	1	—	—	1·02	—
Epilepsy .. .. .	1	—	—	1·02	—
Conjunctivitis .. .. .	9	—	—	9·16	—
Pneumonia .. .. .	7	2	28·57	7·13	2·04
Diarrhoea .. .. .	5	—	—	5·09	—
Lumbago .. .. .	3	—	—	3·05	—
Ankylostomiasis .. .. .	4	—	—	4·07	—
Urethritis .. .. .	1	—	—	1·02	—
Scabies .. .. .	4	—	—	4·07	—
Tropical Ulcers .. .. .	15	—	—	15·27	—
Itch .. .. .	3	—	—	3·05	—
Jiggers .. .. .	1	1	100·00	1·02	1·02
Synovitis .. .. .	1	—	—	1·02	—
Major accidents .. .. .	3	1	33·33	3·05	1·02
Minor accidents .. .. .	133	—	—	135·44	—
Septic Cuts .. .. .	27	1	3·70	27·50	1·02
Headaches .. .. .	1	—	—	1·02	—
Debility .. .. .	2	—	—	2·04	—
Chest diseases not mentioned above .. .. .	13	1	7·69	13·24	1·02
Intestinal diseases not men- tioned above .. .. .	5	—	—	5·09	—
Totals .. .. .	288	8	22·78	293·28	8·15

The death from major accident was from internal haemorrhage as the result of fall—1.

The death from jiggers was from gangrene of toe and heart failure following debilitation—1.

## N'KANA MINE (1929).

Daily average Natives employed, 1,861 (including Contractors' Labour).

	Cases treated.	Deaths.	Mortality Cases per cent.	Sickness incidence rate per mille employed.	Death. rate per mille employed.
Malaria .. .. .	148	—	—	79·53	—
Influenza .. .. .	75	1	1·33	40·30	·54
Dysentery .. .. .	1	—	—	·54	—
Chicken Pox .. .. .	6	—	—	3·22	—
Yaws .. .. .	2	—	—	1·08	—
Myalgia .. .. .	11	—	—	5·91	—
Scurvy .. .. .	1	1	100·00	·54	·54
Syphilis .. .. .	6	—	—	3·22	—
Onyala .. .. .	1	—	—	·54	—
Meningitis .. .. .	1	1	100·00	·54	·54
Epilepsy .. .. .	1	1	100·00	·54	·54
Conjunctivitis .. .. .	32	—	—	17·19	—
Cardiac failure .. .. .	1	1	100·00	·54	·54
Lymphangitis .. .. .	6	—	—	3·22	—
Pneumonia .. .. .	62	10	16·13	33·32	5·37
Diarrhoea .. .. .	15	—	—	8·06	—
Gangrene of Foot .. .. .	1	—	—	·54	—
Septic Sores and Abscess .. .. .	30	—	—	16·12	—
Scabies .. .. .	6	—	—	3·22	—
Tropical Ulcers .. .. .	149	1	·67	80·06	·54
Burns .. .. .	2	—	—	1·08	—
Cuts, etc. .. .. .	16	—	—	8·59	—
Major accidents .. .. .	8	2	25·00	4·29	1·08
Minor accidents .. .. .	327	—	—	175·71	—
Headache .. .. .	3	—	—	1·61	—
Debility .. .. .	10	2	20·00	5·37	1·08
Chest diseases not mentioned above .. .. .	16	—	—	8·59	—
Intestinal diseases not men- tioned above .. .. .	4	—	—	2·15	—
Totals .. .. .	941	20	2·12	505·64	10·74

Death from tropical ulcer was due to debility and toxæmia.

Deaths from major accidents were :

Fell down shaft .. .. .	1
Unspecified .. .. .	1



**(V) HOUSING AND TOWN PLANNING.**

The Town Planning Ordinance was enacted in November, under which the lay-out of all new townships will be submitted to a Town Planning Board, and the difficulties that have been experienced at Ndola will, in future, not arise.

During the year the Central Health Board dealt with Town Planning, and all plans for new lay-outs were submitted to it.

The housing of officials has already been referred to. While it is realised that the present position is due to circumstances outside the control of the Government, the matter must soon receive consideration.

The Medical Officer, Fort Jameson, reports :—

*Housing.*—In Fort Jameson, as elsewhere, the Government will, in a year or two, be faced with an immense building programme. The decay of the houses which were built thirty years ago renders them dangerous in storms and extremely unhealthy.

Dr. Leach, at Fort Rosebery, reports :—

*Housing of Officials.*

1. Provincial Commissioner's house.—Slight screening, leaky iron roof, mosquitoes numerous.
2. District Commissioner's house.—Not screened ; general condition fairly good ; tiled roof in indifferent condition.
3. Medical Officer's house.—This is practically on a level with the clay soil on which it is built. It has no damp or ant proof coursing, and is consequently very damp and riddled with white ants.
4. A.N.C.'s house.—A low-lying Kimberley brick thatched house, condemned years ago. No mosquito proofing possible.
5. Magistrate's Clerk's house.—A very old Kimberley brick thatched cottage. No mosquito proofing possible.

The houses 4 and 5 need no comment beyond that they should have been burnt years ago.

The houses 1 and 2, new houses, have been built without regard to their suitability as dwelling places for Europeans. They have no damp proof coursing. Their ant proof coursing is useless. They were built of new timber, and, apart from that, were not of a design to allow of mosquito netting to advantage.

House 3. The dirt floors of this old erection are below the level of the clay ground, and the whole house is thoroughly damp. There is no ant proof coursing, and a bucket of white ant debris is swept up every morning from the floor.

*Housing.*—In all stations where there is a Management Board regulations make it compulsory for plans of new houses to be submitted to the Board for approval.

**(VI) FOOD IN RELATION TO HEALTH AND DISEASE.**

In the absence of a Sanitation Service it has been impossible to undertake the proper inspection and control of food supplies. Inspections are made by Sanitary Inspectors, but these Inspectors are not properly qualified to undertake the work.

**(b) MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.**

Courses of hygiene are included in the Government European School curriculum.

*Natives.*—Instruction in the elementary principles of personal and general hygiene and sanitation is now part of the curriculum of all Government and Missionary schools.

The six Health Agents mentioned in the last Annual Report are now employed in the Isoka district. No report has yet been received from the District Officer concerning the usefulness of these Natives, and it has not been possible to inspect their work. As it has been found impossible to carry out the building programme in connection with the Native hospitals throughout the country, there are at present no facilities for training

medical orderlies or sanitary personnel on any organised scale, and no funds have been available for the purpose. In spite of these draw-backs the Native orderlies at the Livingstone and Broken Hill Native Hospitals are being specially trained, with a view to transfer to out-stations, and some have already been supplied.

The matter of training Medical Orderlies was brought up at the Missionary Conference held in Livingstone during the year, and Dr. Owen, at the Mulago Training Institute, kindly sent full particulars of the course of training there.

A scheme is being drawn up for the education of Natives as hospital attendants and orderlies in Northern Rhodesia, and as soon as the improvements and additions to the existing hospitals are carried out an organised system of simple medical training will be attempted.

It is considered that the best centres for the preliminary training of orderlies will be at the hospitals which it is hoped will be built in the Native reserves, but the final six months of the course of instruction will be given at the new Native hospital at Livingstone.

The Native orderlies will, for many years, require constant supervision, and the idea that seems to exist in some minds that unsupervised medical orderlies at rural dispensaries will fulfil the needs of the Native population is erroneous. The usefulness of rural dispensaries under proper supervision is not questioned, but to establish these dispensaries in districts where there are no Medical Officers would be a mistake. These dispensaries should have an educational value which is of vital importance to the relief of suffering. They should be centres where, at the visits of the Medical Officers, instruction, as well as advice, should be given.

The adult Native does not easily change the methods that he has always been accustomed to, and it is to the future generations that we must look for improvement in the health conditions of village life.

Dr. Kinghorn and Dr. Leach, who have many years' experience in Native work, both show this point.

Dr. Leach writes as follows :—

“ Measures taken to spread knowledge of hygiene and sanitation—

“ The only measures taken by the Medical Department here are at the Native hospital and the M.O.'s house. All the house boys and their wives are local Natives, and the destruction of refuse, the cleanliness of compounds, and their own cleanliness are under constant supervision. The permanent result is negative.

“ The practical application of even an elementary knowledge of hygiene and sanitation means work for somebody, is not paid for, and shows no results. A trained orderly who has been supervised daily can revert and does revert to village conditions in a week if given the opportunity.

“ If Europeans generally would set an example, good might result, but Europeans have different standards one from another, e.g. at one class of mission from which boys come to be house-boys, etc., the sanitary arrangements and methods for the disposal of rubbish are so crude or non-existent that a visit there is one long nausea. The only hope for improvement is in the practical teaching and example given to small children by the better class (for this purpose) of missions.

“ Future headmen and chiefs should have this branch of knowledge instilled into them early, and this can be done most conveniently at missions. Miss Shaw's work at Mbereshi, from what I have seen of it, is admirable. It is confined, I think, to females. It is at least as important to deal with the male children.”

Dr. Kinghorn reports as follows :—

“ At Abercorn measures are taken to spread the knowledge of hygiene. At all the Mission schools instruction in hygiene and the etiology of the commoner tropical diseases is given, but it cannot be claimed that this has as yet had any appreciable effect on the conditions of village life. I am of the opinion that this is one of the directions in which most good can be done and that special attention should be devoted to it. I have referred in past reports to the lack of even elementary sanitation in the villages and to the proba-



bility that when the Natives are more closely associated in Native reserves the incidence of preventable disease will increase. It is obviously of considerable importance, therefore, that every means of encouraging them to take a greater interest in the sanitation and general cleanliness of their settlements should be encouraged and extended.

“ The Mission schools are now commencing to train certain Natives as medical orderlies and sanitary inspectors, and more extended courses in the subjects bearing on these occupations are being given, the results of which are checked by examinations set by the Department of Native Education. It may be hoped that in time a body of specially trained Natives drawn from the local tribes will exist whose services can be utilised for work in the villages.”

(c) **TRAINING OF SANITARY PERSONNEL.**

In the absence of a Sanitation branch, the only effort in this direction that has been made is by Dr. Chisholm, of the Mwenzo Mission, who trained six Natives for sanitation work.

(d) **RECOMMENDATIONS.**

(1) A Sanitation Service has now been approved, though it is not yet available. The question of the expansion of medical facilities for the Native population should next be considered. This expansion involves additional Native hospitals, rural dispensaries, and increased medical staff, especially for touring purposes.

(2) The scheme for the improvements and additions to existing Native hospitals already submitted should be carried out as soon as possible.

(3) A Bacteriologist should be appointed and a laboratory established, at present to undertake routine examination but with a view to research work later.

(4) A whole-time Malarial Officer should be appointed to investigate malarial conditions in the first place along the railway strip, and especially in centres where there are Boarding Schools.

(5) A Medical Officer should be appointed for work in the Luangwa Sleeping Sickness Area.

**SECTION IV.**

**PORT HEALTH WORK AND ADMINISTRATION.**

The only port in Northern Rhodesia is situated at Mpulungu, on Lake Tanganyika. The T.R.S.S. “ Liemba ” calls there every fortnight and the amount of traffic, both passenger and goods, has been steadily increasing. The Medical Officer, Abercorn, is port medical officer, and all Native passengers are examined before being allowed to disembark. No cases of epidemic or contagious disease were found amongst passengers disembarking at the port during the year.

Recommendations for the improved sanitary and general conditions of the port were made by the port medical officer, and these are receiving attention.

**SECTION V.**

**MATERNITY AND CHILD WELFARE.**

**European.**

**LIVINGSTONE.**—The Livingstone Welfare Centre, which is the only European welfare centre in the territory, was organised by Miss A. B. Buck, of the Nursing Service, during her off duty time some years ago. She still continues to administer this centre with the help of local women interested in the work. The centre is popular and very well attended and does most admirable work. The attendances are increasing and a local committee has been formed for its management. The present clinic is held in the railway dispensary, but this building is no longer suitable for the purpose and funds are being raised for a new building. The excellent work done voluntarily by Miss Buck must be acknowledged, also the interest shown by Lady Maxwell and other ladies who so often attend to assist in the work, and the General Manager of the Rhodesia Railways who has encouraged the centre and allowed a railway building to be used for the purposes.

**MBERESHI MISSION.**—This Native centre, which was started two years ago with the help of a subsidy from the Government under the superintendence of Dr. Margaret Morton, is doing most useful work. It is very well attended by the local women. It was visited

in October. Some forty women with their infants were in attendance. These received attention and instruction from Dr. Morton, assisted by the elder girls from Miss Shaw's school who are being trained for the work.

Both Miss Shaw and Dr. Morton are doing most valuable work in the training of Native girls to be useful wives and mothers in their own villages. It is only by training the youth of to-day that real progress will be made in bettering the conditions of Native village life.

KASAMA.—This centre was started by Miss Eastland, a nursing sister, during the year and has met with astounding success. Over 600 women attended on one day. Seven or eight Native pupils have already been trained to attend simple infantile ailments and to instruct Native mothers in the hygiene of the infant, and these pupils visit the adjacent villages regularly for this purpose.

The work was being carried on in temporary grass shelters, and it is of the utmost importance that permanent buildings should be erected during the year.

Miss Eastland considers that the local Native women show great capacity for training and that, given the necessary buildings and equipment, Native female nurses can also be trained to assist in hospital work. It is emphasised that these two centres are doing most valuable work and should receive every encouragement.

MONGU.—Dr. Sheehan reports: "The Welfare Centre at Mongu Hospital continues to function satisfactorily. Lectures are delivered twice weekly on the care of infants and general hygiene." This centre was started by Dr. Sheehan, but there has been no opportunity to visit it.

The following is the report for the Kasama Welfare Centre for the period July to December:—

<i>Intern.</i> —Clinic attendances	..	..	..	6,429
Clinic treatments	..	..	..	4,723
Classes held	..	..	..	49
<i>Extern.</i> —Villages visited	..	..	..	2,319
Births attended	..	..	..	58
Children inspected	..	..	..	984
Reported deaths..	..	..	..	21
Pupils and workers in training	..	..	..	12

It must be noted that in the absence of suitable buildings the work must to a great extent come to a standstill during the rainy months.

#### SECTION VI.

#### HOSPITALS, DISPENSARIES, AND VENEREAL CLINICS.

The European hospitals remain as before.

The Fort Jameson Hospital was opened early in the year.

#### Native Hospitals.

The building scheme for improving and increasing the accommodation of existing hospitals has not been carried out with the exception of the Balovale, which was nearing completion at the end of the year.

There are no Government Native hospitals in the territory, with the exception of Broken Hill, which provide adequate accommodation, and the existing accommodation in most hospitals cannot be considered satisfactory and in some the conditions are frankly bad.

Considerable expenditure has been incurred in thatching and repairing buildings that ought to be condemned. The improvement of existing Native hospitals is the first step to providing better facilities for the Native population. It is, however, satisfactory to note that attendance at all out-patients' departments has increased. The modern treatment of yaws and syphilis has resulted in a new class of patient coming for treatment at the hospitals. These generally bring their families with them and accommodation should be provided for them. It is considered that burnt brick huts will afford the most suitable accommodation.



Pole and dagga huts are in the end costly substitutes for permanent buildings. Every year expenditure is entailed in repairing and thatching and they soon become dilapidated and untidy. An impervious floor is also necessary.

Experiments, kindly carried out by Mr. Allen at the Mazabuka Research Station, show that the best preparation for painting the walls is a tar preparation, which can be obtained from the Wankie Collieries. This gives some protection from the *Ornithodoros* Moubata and bugs and other vermin. It has been used most successfully in the gaols.

Dr. Leach, Senior Medical Officer, on commenting on the results of the treatment of leprosy with Alepol, states it is disappointing and not an improvement on Hydnocreol. Eight cases were under treatment for an average of 67 days. Three showed considerable improvement, but nothing in the nature of a cure was seen.

He shows the importance of lepers being treated in a place where village conditions are available and they can have their families with them, and considers Fort Rosebery unsuitable on account of the scarcity of food and suggests the Luapula or Lake Bangweulu as suitable sites. His final note on leprosy gives food for reflection.

"Tinkering with the disease will only make the solution of the question more difficult when it comes, as it must be systematically handled. There is already a leaven of lepers in the district who have been treated, some, it is true, who have been relieved perhaps, but none of them cured. I do not consider it advisable to add to the number."

He considers the use of bismuth metal in glucose for the treatment of yaws preferable to Bismuth et. Sod. Tart for Babies.

Cases of pyorrhoea or unclean mouths are likely to develop stomatitis with the latter preparation.

*Goitres*.—Eight cases were treated in hospital at Fort Rosebery, very many as out-patients. Women send from great distances for a fortnight's supply of the iodine solution, which is conveniently carried in a spirit bottle. He stresses the necessity for a continuous vaccination campaign, otherwise "this year's crop of babies will remain unvaccinated and be ripe for infection." The truth of this assertion cannot be gainsaid.

Dr. Newsom, Mazabuka, reports: "Syphilis in all stages, but particularly the primary chancre, forms the greatest number of patients treated at the Native hospital. The Native seems to repose great faith in the intra-muscular bismuth treatment, and very frequently asks to be given injections for conditions other than syphilis."

Dr. Gilkes, Fort Jameson, reports on the Native rural dispensaries as follows:

"These continue to do very good work. They are increasingly popular with the Natives. Number of cases treated as follows:

			<i>In-patients.</i>	<i>Out-patients.</i>
Mang'onje	..	..	362	1,693
Niobo	..	..	145	1,191
Magodi	..	..	363	1,154

The out-patient figures represent actual patients—not attendances.

*Kasama*.—Medical orderlies are stationed at Mpika, Luwingu, Chinsali, and there are rural dispensaries at N'Konge and Chambesi.

			<i>In-patients.</i>	<i>Out-patients.</i>
Mpika	..	..	52	1,782
Chinsali	..	..	35	4,291
Luwingu	..	..	44	1,044
Chambesi	..	..	5	582

The Chiluya rural dispensary was closed, and N'Konge, a new station, opened in October—500 patients were treated during the three months it was open.

Dr. Murray reports: "More of these dispensaries, more personnel and equipment are required to really reach the needs of the Native population."

Dr. Sheehan, Mongu, reports: "Six new huts were added during the year, twelve feet square, capable of accommodating more than two patients if necessary. An isolation hospital with two wards, surrounded by a barbed-wire fence, was also built."

"Dispensaries.—A venereal disease clinic is conducted at the Native dispensary. Syphilis is treated to a great extent by deep injections of bismuth, with very satisfactory

results. The treatment is very popular and people continue to attend in ever-increasing numbers.

A gratifying feature is the large number of women who attend for treatment, amounting to almost 50%, a very important factor in eradicating the focus of infection."

#### EUROPEAN HOSPITALS (1929).

Hospital.	Year.	Daily average.	Admissions.	Deaths.
Livingstone .. .. .	1928	8·82	335	15
	1929	11·6	458	10
Broken Hill .. .. .	1928	15·8	412	9
	1929	8·1	338	4
Lusaka .. .. .	1928	5·8	220	6
	1929	5·4	200	6
Fort Jameson .. .. .	1928	1·66	50	1
	1929	·13	43	—
Kasama .. .. .	1928	·36	10	—
	1929	·25	9	—
Mongu .. .. .	1928	·13	6	—
	1929	·10	4	1

#### NATIVE HOSPITALS (1929).

Hospital.	Year.	Admissions.	Deaths.
Livingstone .. .. .	1928	1,386	188
	1929	1,562	214
Broken Hill .. .. .	1928	1,622	115
	1929	1,330	75
Lusaka .. .. .	1928	501	24
	1929	474	29
Fort Jameson .. .. .	1928	474	31
	1929	352	15
Kasama .. .. .	1928	341	10
	1929	390	3
Mongu .. .. .	1928	557	14
	1929	505	10
Mazabuka .. .. .	1928	867	22
	1929	572	24
Fort Rosebery .. .. .	1928	338	4
	1929	408	6
Ndola .. .. .	1928	435	34
	1929	630	43
Abercorn .. .. .	1928	102	4
	1929	65	1
Choma .. .. .	1928	549	5
	1929	746	14
Solwezi .. .. .	1928	900	7
	1929	1,506	12



The following table shows the total cases treated in Native hospitals, with total deaths and mortality rates for 1927, 1928, and 1929 :—

Station.	Cases treated.			Deaths.			Mortality per cent.		
	1927.	1928.	1929.	1927.	1928.	1929.	1927.	1928.	1929.
Ndola ..	385	449	645	18	34	43	4.70	7.57	6.67
Livingstone	1,278	1,480	1,638	185	188	214	14.40	12.70	13.06
Broken Hill	1,936	1,729	1,427	117	115	75	6.04	6.65	5.26
Lusaka ..	520	534	489	24	24	29	4.61	4.49	5.93
Mazabuka ..	843	924	605	14	22	24	1.66	2.38	3.97
Choma ..	—	549	772	—	5	14	—	.91	1.81
Fort Jameson	437	476	371	23	31	15	5.20	6.51	4.04
Fort Rosebery	273	345	420	8	4	6	2.90	1.16	1.43
Kasama ..	336	341	403	7	10	3	2.08	2.93	.74
Mongu ..	443	573	524	15	14	10	3.40	2.44	1.91
Abercorn ..	62	106	74	2	4	1	3.20	3.77	1.35
Solwezi ..	887	943	1,506	4	7	12	.45	.74	.79
	7,400	8,449	8,874	417	458	446	5.60	5.42	5.03

#### Co-operation with Missionary Societies in providing Medical Facilities for the Native Population.

The scheme for providing medical facilities for the Native population by co-operation with the Missionary Societies has been extended and additional grants-in-aid have been made.

An organised system of training medical orderlies, which is under consideration, has been referred to, and the co-operation of the medical staff of the Mission will be invited to assist in this work. The essentials of the system are the adoption of a definite curriculum and an agreement with the Native pupils to undergo a course of instruction for a definite period.

The following Missionary Societies received subsidies from the Government towards hospitals or the purchase of drugs :—

- Paris Mission, Sesheke : Dr. Reutter. Hospital.
- Livingstonia Mission, Mwenzo : Dr. Chisholm. Hospital.
- Livingstonia Mission, Chitambo : Dr. Wilson. Hospital.
- Baila-Balonga Mission, Kasenga : Dr. Gerrard. Hospital.
- Christian Mission, Kalene Hill : Dr. Fisher. Hospital.
- Livingstonia Mission, Lubwa : Dr. Brown. Hospital.
- Seventh Day Adventist, Fort Jameson : Dr. Marcus. Hospital and Leper Colony.
- Mbereshi Mission : Dr. Morton. Hospital and Welfare Centre.
- Kawimbi Mission, Abercorn. Dispensary.
- Wesleyan Methodist Mission, Chipembi : Rev. Gray. Dispensary.
- London Missionary Society, Mporokoso. Hospital.
- P. Methodist Mission, Mumbwa. Dispensary.
- S. African General Mission, Kasempa. Dispensary.
- Dutch Reform Mission, Madzi Moyo : Dr. Knobel. Hospital and Leper Colony.
- Livingstonia Mission, Chasefu Lundazi. Dispensary.
- Salvation Army, Mazabuka and District. Dispensary.
- Plymouth Brethren, Johnston Falls. Dispensary.
- S. African General Mission, Mankoya. Dispensary.
- Church of Christ Mission, Sinde. Dispensary.
- Roman Catholic Mission, Chikuni. Dispensary.
- Brethren in Christ Mission, Choma. Dispensary.
- White Fathers, various stations. Dispensary.
- Mr. Penny, Kalomo. Dispensary.
- U.M.C.A., Msoro. Dispensary.

In addition, special grants were made towards the construction of hospitals at Mwanzo, Mporakoso, and Chipembi.

## SECTION VII.

## PRISONS AND ASYLUMS.

## LIVINGSTONE.

Number committed (1929) .. ..	274
Daily average .. .. .	107
Daily average in Livingstone Hospital	2·78
Admitted to hospital .. .. .	49
Deaths .. .. .	3

*Causes of Death.*

Execution .. .. .	1
Influenza .. .. .	1
Pellagra .. .. .	1

*Diseases treated in Hospital.*

Influenza .. .. .	6
Chicken pox .. .. .	6
Malaria .. .. .	1
Leprosy .. .. .	3
Scurvy .. .. .	6
Pellagra .. .. .	1
Affection of the eye .. .. .	3
Affection of the ear .. .. .	2
Phlebitis .. .. .	2
Hernia .. .. .	1
Pneumonia .. .. .	1
Diarrhoea .. .. .	2
Haematuria .. .. .	1
Abscesses and Ulcers .. .. .	6
Senility .. .. .	1
General injuries .. .. .	7
	—
	49

## BROKEN HILL.

Number committed (1929) .. ..	535
Daily average .. .. .	99
Daily average sick .. .. .	6·5
Admitted to hospital .. .. .	70
Deaths .. .. .	4

*Causes of Deaths.*

Dysentery .. .. .	1
Tuberculosis .. .. .	1
Pneumonia .. .. .	1
Ankylostomiasis .. .. .	1

*Diseases treated in Hospital.*

Influenza .. .. .	36
Dysentery .. .. .	2
Leprosy .. .. .	1
Syphilis .. .. .	11
Gonorrhoea .. .. .	2
Otitis .. .. .	2
Minor injuries .. .. .	6
Abscess .. .. .	2
Conjunctivitis .. .. .	2
Bilharzia .. .. .	1
Ulcer .. .. .	2
Insanity .. .. .	2
Tuberculosis .. .. .	1
	—
	70
	—

## MONGU.

Number committed (1929)	..	..	173
Daily average	..	..	39·61
Daily average in hospital	..	..	2·1
Admitted to hospital	..	..	47
Attending as out-patients	..	..	65
Deaths	..	..	nil

*Diseases treated in Hospital.*

Malaria	..	..	..	..	17
Influenza	..	..	..	..	2
Dysentery	..	..	..	..	1
Syphilis	..	..	..	..	10
Gonorrhoea	..	..	..	..	2
Rheumatism	..	..	..	..	6
Myocarditis	..	..	..	..	1
Epistaxis	..	..	..	..	1
Enteritis	..	..	..	..	3
Ankylostomiasis	..	..	..	..	1
Cellulitis	..	..	..	..	1
Oedema	..	..	..	..	2

—  
47  
—

*Medical Officer's Remarks.*—General health of convicts satisfactory. Sanitary state of gaol buildings excellent.

## MAZABUKA.

Number committed (1929)	..	..	300
Daily average	..	..	35·2
Daily average sick	..	..	1
Admitted to hospital	..	..	36
Deaths	..	..	2

*Causes of Death.*

Pneumonia	..	..	..	..	1
Septicaemia	..	..	..	..	1

*Diseases treated in Hospital.*

Tropical Ulcers	..	..	..	..	9
Pneumonia	..	..	..	..	3
Diarrhoea	..	..	..	..	4
Rheumatism	..	..	..	..	4
Malaria	..	..	..	..	3
Influenza	..	..	..	..	1
Bronchial Catarrh	..	..	..	..	1
Scurvy	..	..	..	..	1
Scabies	..	..	..	..	1
Incised wound of leg	..	..	..	..	2
Severe wound of wrist	..	..	..	..	1
Septic leg	..	..	..	..	1
Gonorrhoea	..	..	..	..	1
Varicella	..	..	..	..	1
Epistaxis	..	..	..	..	1
Conjunctivitis	..	..	..	..	1
Septicaemia	..	..	..	..	1

—  
36  
—

*Medical Officer's Remarks.*—State of prison very satisfactory.



## FORT JAMESON.

Number committed (1929)	..	..	163
Daily average	..	..	65.8
Daily average sick	..	..	2.4
Admitted to hospital	..	..	18
Deaths	..	..	nil

*Diseases treated in Hospital.*

Diarrhoea	..	..	..	..	1
Pneumonia	..	..	..	..	1
Relapsing Fever	..	..	..	..	1
Ankylostomiasis	..	..	..	..	1
Haemorrhoids	..	..	..	..	1
Influenza	..	..	..	..	1
Malaria	..	..	..	..	3
Septic hand	..	..	..	..	3
Tumour	..	..	..	..	1
Abscess groin	..	..	..	..	1
Cut ankle	..	..	..	..	2
Malingering	..	..	..	..	2
					—
					18
					—

*Medical Officer's Remarks.*—Gaol building old and in bad state of repair. Health of prisoners good.

## LUSAKA.

Number committed (1929)	..	..	239
Daily average	..	..	13
Admitted to hospital	..	..	18
Deaths	..	..	nil

*Diseases treated in Hospital.*

Bacillary Dysentery	..	..	..	1
Yaws	..	..	..	1
Syphilis	..	..	..	3
Bronchitis	..	..	..	2
Lobar Pneumonia	..	..	..	3
Diarrhoea	..	..	..	1
Cellulitis	..	..	..	3
Scabies	..	..	..	1
Tropical Ulcer	..	..	..	1
Snake bite	..	..	..	1
Wounds by fall	..	..	..	1
				—
				18
				—

## KASAMA.

Number committed (1929)	..	..	158
Daily average sick	..	..	1.4
Daily average in hospital	..	..	.06
Deaths	..	..	1

*Cause of Death.*

Execution	..	..	..	1
-----------	----	----	----	---

*Diseases treated.*

Malaria.	}	No figures available.
Influenza.		
Diarrhoea.		
Syphilis.		
Cuts.		

*Medical Officer's Remarks.*—Health of prisoners above the average. Rations and clothing excellent and according to scale.

## LUWINGU.

Number committed (1929)	..	..	94
Daily average sick	..	..	·01
Deaths	..	..	nil

*Diseases treated.*

Ulcers.	}	No figures available.
Coryza.		
Headaches.		

*Medical Officer's Remarks.*—Gaol in excellent condition.

## MPIKA.

Number committed (1929)	..	..	58
Daily average sick	..	..	·13
Deaths	..	..	nil

*Diseases treated.*

Minor complaints and fever.

## CHINSALI.

Number committed (1929)	..	..	21
Daily average sick	..	..	·08
Deaths	..	..	nil

*Diseases treated.*

Malaria.

*Medical Officer's Remarks.*—Visited fortnightly and found general health to be excellent.

## ABERCORN.

Number committed (1929)	..	..	59
Daily average	..	..	8·1
Daily average in hospital	..	..	·29
Admitted to hospital	..	..	3
Attending as out-patients	..	..	97
Total number of attendances	..	..	329
Deaths	..	..	nil

*Diseases treated in Hospital.*

Septic foot	..	..	..	1
Diarrhoea	..	..	..	1
Cellulitis	..	..	..	1

—

3

—

*Medical Officer's Remarks.*—Gaol kept in good order and scrupulously clean. After commenting on the scarcity of green vegetables at certain periods of the year, the Medical Officer recommends that a prison garden be started.

## FORT ROSEBERY.

Number committed (1929)	..	..	89
Daily average	..	..	5·9
Deaths	..	..	nil

All treatment was to out-patients and confined to trifling ailments; 128 prisoners were attended.

*Medical Officer's Remarks.*—Prison clean and well kept. General health of prisoners excellent.

TABLE IV.

*Figure for Livingstone, 1929.**Observatory.*

	Mean Max.	Mean Min.	Range.	Mean.	Rain- fall (Ins.).	Hum- idity.	Winds Direc- tions.	Av. Force.
January .. ..	86.5	66.8	19.7	76.7	7.48	78	N.76 E.	1.2
February .. ..	88.9	67.1	21.8	78.0	2.65	74	N.71 E.	1.0
March .. ..	84.6	64.5	20.1	74.6	3.95	78	N.89 E.	1.2
April .. ..	86.9	57.7	29.2	72.3	—	60	S. 87 E.	1.0
May .. ..	84.0	54.1	29.9	69.1	—	62	N.85 E.	0.8
June .. ..	79.9	47.9	32.0	63.9	—	61	S. 91 E.	0.6
July .. ..	78.7	47.0	31.7	62.8	—	60	S. 68 E.	0.8
August .. ..	81.0	52.2	28.8	66.6	—	46	S. 83 E.	1.4
September .. ..	94.4	63.8	30.8	79.1	—	37	S. 82 E.	1.2
October .. ..	98.8	73.1	25.7	85.9	0.40	37	S. 84 E.	1.4
November .. ..	95.0	71.9	23.1	83.5	2.99	47	N.68 E.	1.3
December .. ..	86.1	66.6	19.5	76.3	8.63	74	N.68 E.	1.1
Means .. ..	87.1	61.1	26.0	74.1	2.17	59.5	—	1.1

TABLE IVA.

*Comparisons of four Plateau and three Zambesi Valley Stations Shade Temperatures.**Period July, 1928, to June, 1929.*

Month.	Zambesi Valley Stations.			Plateau Stations.		
	Average Max.	Average Min.	Mean.	Average Max.	Average Min.	Mean.
July .. ..	79.9	48.8	64.3	74.2	47.9	61.0
August .. ..	87.0	53.9	70.4	79.0	52.6	65.8
September .. ..	96.9	65.5	81.2	87.4	59.9	73.6
October .. ..	100.5	70.5	85.5	90.8	62.2	76.5
November .. ..	96.7	71.7	84.2	87.8	63.9	75.8
December .. ..	90.3	69.3	79.8	81.7	62.5	72.1
January .. ..	88.1	68.7	78.4	79.5	61.1	70.3
February .. ..	90.3	68.7	79.5	81.1	61.3	71.2
March .. ..	88.1	66.7	77.4	79.1	61.1	70.1
April .. ..	90.4	67.2	78.8	77.8	57.3	67.5
May .. ..	86.7	55.9	71.3	79.0	53.0	66.0
June .. ..	83.7	51.3	67.5	76.9	51.6	64.2
Means .. ..	89.9	63.2	76.5	81.2	57.9	69.5

Means of :—

Mongu.  
Livingstone.  
Feira.

Means of :—

Abercorn.  
Fort Jameson.  
Lusaka.  
Kasama.



## APPENDIX A.

**REPORT ON SLEEPING SICKNESS IN THE NEIGHBOURHOOD OF THE SERENJE-FORT JAMESON MAIL ROAD, NORTH OF THE LUANGWA RIVER.***By* DR. GILKES.

The route down to the valley was east of the mail road in order to perform two post mortems on murdered natives at Njalale. The route taken up to Serenje on the return journey was along the mail road itself, since there have been several recent cases of sleeping sickness amongst travellers on this road.

**Villages Visited.**

1. *Serenje to Njalale*.—Chikashila Village and Musoko Village are both out of the Fly area, as they are on the top of the escarpment, but sleeping sickness cases are possible at both, because the Natives are continually into and out of the Luangwa Valley. No sleeping sickness cases were seen and no suspects. The Natives seemed healthy. There were no Tse-tse fly for about a mile from the bottom of the escarpment.

*Chilafi*.—Very unhealthy and badly situated. Surrounded with tall reeds and grass. It resembles a swamp village; the children all had enlarged spleens. There was one suspicious case of sleeping sickness. Other cases were reported but were probably hidden, as they were not to be found.

*Njalale and Yumba*.—Connected with Chilaki by a six-foot cleared road. Fly is very bad all the way. Both villages are well cleared, but Fly were present in Njalale village soon after dawn. Several cases of sleeping sickness reported but none could be found in the village or in the gardens near.

2. *Njalale to Chiwanda on the Luangwa crossing*.—Fly is troublesome.

Chiwanda is on a well-cleared river flat. It is free of Fly and is apparently free from sleeping sickness cases. Several gardens were searched.

3. *Luangwa River, Chiwanda to Serenje*.—The Fort Jameson mail road is cleared from the Ntesasi river to the foot of the escarpment and is a good wide road.

*Saidi*.—No sleeping sickness cases reported or found.

*Mwana Chanda*.—On the Mtesasi river. No sleeping sickness cases reported or found.

*Cheronga*.—On the Lusiwasi river. Not visited, but it was reported to be free of sleeping sickness cases.

*Domila*.—Bad Fly on the road. A case of sleeping sickness from this village died on the way to Chitambo recently.

*Donati Matombo*.—One case of sleeping sickness found. The only definite case found on the tour—a male Native called Mulilo, who has been ill since January, 1929. His relatives and the head man were eager for medicine but were unwilling for him to be carried all the way to Chitambo because of the man from Domila's, who had died a short time previously in this way.

*Kachulu*.—At foot of the escarpment. Fly free and no cases of sleeping sickness.

*Mutenge*.—At the top of the escarpment, healthy and Fly free. No sleeping sickness cases could be found.

4. *Chitambo Mission*.—One case of sleeping sickness is under treatment here now. This man was a carrier on an ulendo across the valley by the Fort Jameson mail road. He does not live in the valley but near Serenje.

The Revd. J. Moffat and the workers at the Mission are in the position of having gained much of the Native confidence as regards illness. They are of the opinion that sleeping sickness has increased a great deal lately in the valley and they state that they hear the Natives speak of this increase amongst themselves and express unwillingness to go through even along the mail road because of this. They say that this year the Natives of the high Serenje district fear sleeping sickness.

5. *General*.—The Fly was *Glossina morsitans* throughout. No *G. Palpalis* were caught or seen.

The Fly were largely dependent on the herds of game. A large herd of zebra or buffalo in the vicinity produced troublesome Fly at once.

There was much other illness seen in the villages of the valley. Dysentery was present in nearly all the villages. The children nearly all had enlarged spleens. There were a number of untreated burns and a few very bad tropical ulcers.

The clearing of the bush away from the side of the road is a great help towards the safety of travellers, though the fly still continue to be bad on the cleared stretch of the mail road.

6. *Suggestion*.—Since the sick are hidden as soon as a Medical Officer appears in the valley, it would be better to send reliable orderlies first to move along the valley routes, making enquiries as far as possible without arousing suspicion of Government interference and as far as possible as if they were ordinary Natives returning to their homes from the mines. When suspicious villages with most cases in them have been definitely noted in this way, a Medical Officer could take a tent and microscope and drugs to settle at the foot of the escarpment in as central a position as possible for any group of villages with suspects in them. There are many good Fly free places at the foot of the Muchingas, where a camp could be placed. From there he could inject cases in the villages until their confidence had been gained. He could then build a few grass huts and arrange a small temporary dry weather hospital. The Natives are eager in the valley for medicine to cure the sleeping sickness cases, but they distrust anyone who wants to carry them on a long journey up the mountain side, with the possibility of death on the way, to a strange European brick building away from their friends and homes. There are certainly many cases of sleeping sickness in the valley and Bayer 205 can cure them. The visit of a Medical Officer and messengers will never find them. They can only be reached and rendered non-dangerous by treating them at temporary hospitals at the foot of the hills, in their own country and amongst their friends.

## APPENDIX B.

**REPORT ON SLEEPING SICKNESS: PETAUKE.**

*By Mr. L. H. L. POOLE, District Commissioner, Petauke.*

1. Further to my Report No. 381, dated 10th August, 1929, to which this refers, Dr. Acheson, Medical Officer, Fort Jameson, started his investigations into the incidence of sleeping sickness in the Petauke District on 30th July and concluded them on 26th September, 1929, the enquiry extending over 59 days. During the whole period of his investigations he was accompanied by one or the other of the District Officers.

2. The areas were visited by him in the following order :—

- (1) The area lying west of Msoro Mission, including the villages situated on the Fort Jameson—Serenje Road.
- (2) The villages intervening between the above area and the Petauke Reserve.
- (3) The Petauke Reserve.
- (4) The area in the vicinity of the Chilinga Reserve and the Great East Road near the Luangwa Pontoon.
- (5) The Wambo Reserve.
- (6) The villages intervening between the Wambo Reserve and the Petauke Reserve.

3. In the compilation of statistics below the areas and the population have been classified in three separate categories, viz. (1) The Reserves, (2) Crown Land, (3) The North Charterland Concession.

Villages situated in the one mile strip of Crown Land between the Native Reserves and the Luangwa River have been included in the Reserve adjacent to them, but those villages situated in the one mile strip not adjacent to a Reserve are included in Crown Land.

4. A full report upon the incidence of sleeping sickness in the first two areas referred to in paragraph 2 has already been forwarded to you. (No. 381 of 10th August.)

In the Petauka Reserve fifteen villages were visited and two cases of sleeping sickness have been found. The first was discovered at Siria's Village in June by myself and confirmed by the Medical Officer from blood slides submitted to him for examination. This patient died a few weeks after diagnosis. The second case was discovered by Dr. Acheson at Chitungwe's Village and was brought into Petauke for treatment. This case was an adult female of about 22 years, and she was subjected to a course of Bayer 209. The village of Chitungwe, like that of Siria, and all but one of the other villages where sleeping sickness has been observed, is a newly-built village.

5. Ten villages in the vicinity of the Great East Road where it crosses the Luangwa were visited. All the villages, both on the east and the west bank, draw water from the Luangwa River, and are situated in Crown Land. This area has been referred to as the Chilinga Reserve, but actually there are no villages in the Reserve as defined. No cases of sleeping sickness were discovered.

6. An examination was made of the population of fifteen villages in the Wambo Reserve. These villages consist of seven which have been established here for a number of years, and eight which have recently, this year or last, moved into the Reserve. No cases of sleeping sickness were discovered.

7. In the area between the Wambo and Petauka Reserves, all the villages—twelve in number—were examined. Two cases had been discovered by myself at Zambu's Village from blood slides taken and submitted to the Medical Officer for examination, which confirmed sleeping sickness. Of these cases one died previous to the Medical Officer's visit, while the other who was seen by him expired a week later. Special attention was given to this village and the villages in the neighbourhood, but no fresh cases were discovered.



8. Altogether seven cases of sleeping sickness have been discovered, three by myself in June, confirmed by the Medical Officer on microscopic examination of the blood slides taken, and four by the Medical Officer. The number of villages visited by him was 70 and the total population recorded domiciled in these villages 7,556, giving a rate of sleeping sickness of .092 per cent of the population.

Of the figure given for the total population, by no means all were resident in the villages. The Medical Officer will be able to furnish numbers of persons actually examined and the percentage of diagnosed cases to the number subjected to examination.

9. The following is the statistical distribution of the population and cases of sleeping sickness discovered :—

Area.	Total population.	No. Sleeping Sickness Cases.	Percentage.	Total population.
I. <i>Reserves.</i>				
(a) Petauke .. ..	1,717	2	.116	—
(b) Wambo .. ..	1,781	—	.000	3,498
II. <i>Crown Land.</i>				
(a) Fort Jameson-Serenje Road .. ..	448	2	.446	—
(b) 1 mile strip between Petauke and Wambo Reserves .. ..	595	—	.000	—
(c) 1 mile strip Chilinga area .. ..	1,027	—	.000	2,070
III. <i>N.C.E. Concession.</i>				
(a) Between Fort Jameson-Serenje Road and Petauke Reserve .. ..	1,021	1	.097	—
(b) Between Petauke and Wambo Reserves ..	967	2	.206	1,988
	7,556	7	.092%	7,556

10. The infected villages are distributed at intervals between longitudes 30-45 and 31-30 E. and within a distance of about 15 miles from the Luangwa River. Geographically the infected area lies between the Lusangazi River on the east and the Mvuvye River on the west. No infection was found west of longitude 30-45 or south of latitude 140.

The infected areas include the Petauke Reserve, and the Crown Land west of Msoro Mission, through which runs the Port Jameson-Serenje Road. The cases found in the N.C.E. Concession were in villages lying both to the east and west of the Petauke Reserve.

TABLE V.

RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.  
LIVINGSTONE HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1a. Enteric fever .. ..	—	5	—	5	—	
1d. Paratyphoid fever .. ..	2	1	—	3	—	
2. Typhus fever .. ..	—	1	1	1	—	
3. Relapsing fever .. ..	—	1	—	1	—	
4. Undulant fever .. ..	—	1	—	1	1	
5c. Malaria .. ..	2	166	1	168	2	
5e. Blackwater fever .. ..	—	2	1	2	—	
6. Smallpox.. ..	—	1	—	1	—	
11. Influenza.. ..	—	4	—	4	—	
16c. Dysentery .. ..	1	4	—	5	—	
24. Cerebrospinal fever .. ..	1	—	—	1	—	
25a. Rubella .. ..	—	1	—	1	—	
25b. Varicella .. ..	—	1	—	1	—	
31. Pulmonary T.B. .. ..	—	3	—	3	—	
35. Tuberculosis of hip .. ..	—	4	—	4	—	
38e. Syphilis .. ..	—	1	—	1	—	
41. Septicaemia .. ..	—	1	—	1	—	
<b>II. General Diseases not mentioned above.</b>						
43. Epithelioma of lip .. ..	—	1	—	1	—	
44. Cancer of liver .. ..	—	1	—	1	—	
48. Cancer unspecified .. ..	—	2	—	2	—	
50. Tumour of breast .. ..	—	2	—	2	—	
51. Rheumatism .. ..	—	2	—	2	1	
58b. Anaemia .. ..	—	2	—	2	—	
66. Alcoholism .. ..	—	2	—	2	—	
68. Morphomania .. ..	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
74a. Cerebral Haemorrhage .. ..	—	1	1	1	—	
74b. Embolism of lung .. ..	—	1	—	1	—	
77. Mental alienation .. ..	—	2	—	2	—	
78. Epilepsy .. ..	—	1	—	1	—	
78. Petit mal.. ..	—	1	—	1	1	
80. Convulsions .. ..	—	1	1	1	—	
82b. Neuritis .. ..	—	1	—	1	—	
82c. Neurasthenia .. ..	—	3	—	3	—	
85b. Conjunctivitis .. ..	—	1	—	1	—	
85e. Cataract .. ..	—	2	—	2	—	
Carried forward .. ..	6	224	5	230	5	

LIVINGSTONE HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	6	224	5	230	5	
<b>IV. Affections of the Circulatory System.</b>						
90. Auricular fibrillation .. ..	—	2	—	2	—	
90b. Senile heart .. ..	—	1	—	1	—	
92. Thrombosis .. ..	—	1	—	1	—	
93. Haemorrhoids .. ..	—	4	—	4	1	
94. Lymphangitis .. ..	—	3	—	3	—	
95. Haemoptysis .. ..	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
97. Coryza .. ..	—	2	—	2	—	
98. Laryngitis .. ..	—	2	—	2	—	
99. Bronchitis .. ..	—	6	—	6	—	
100. Broncho-pneumonia .. ..	—	3	1	3	1	
101b. Pneumonia .. ..	—	2	—	2	—	
102. Pleurisy .. ..	—	1	—	1	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. Edentation .. ..	1	6	—	7	—	
109. Tonsilitis .. ..	—	4	—	4	1	
109. Pharyngitis .. ..	—	1	—	1	—	
111a. Gastric ulcer .. ..	—	2	—	2	—	
111b. Duodenal ulcer .. ..	—	1	—	1	—	
112. Gastritis .. ..	—	6	—	6	—	
114. Enteritis .. ..	—	3	—	3	—	
117. Appendicitis .. ..	—	25	—	25	1	
119a. Fistula .. ..	—	1	—	1	—	
119b. Constipation .. ..	1	—	—	1	—	
123. Cholelithiasis .. ..	—	1	—	1	—	
124. Jaundice .. ..	—	1	—	1	—	
124. Cholecystitis .. ..	—	1	—	1	—	
127. Colic .. ..	—	2	—	2	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
131. Pyelitis .. ..	—	2	—	2	—	
132. Renal calculus .. ..	—	3	—	3	—	
133. Cystitis .. ..	—	1	—	1	—	
136. Orchitis .. ..	—	1	—	1	—	
140. Uterine Haemorrhage. .. ..	—	1	—	1	—	
140. Metrorrhagia .. ..	—	1	—	1	—	
140. Menorrhagia .. ..	—	2	—	2	—	
141a. Endometritis .. ..	—	10	—	10	—	
141b. Amenorrhoea .. ..	—	1	—	1	—	
141b. Prolapse of uterus .. ..	—	1	—	1	—	
141b. Dysmenorrhoea .. ..	—	2	—	2	—	
Carried forward .. ..	8	331	6	339	9	



## LIVINGSTONE HOSPITAL (continued).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	8	331	6	339	9	
<b>VIII. Puerperal State.</b>						
143a. Confinements .. ..	—	40	—	40	2	
143ba. Abortions .. ..	—	10	—	10	—	
145. Accidents of parturition ..	—	4	—	4	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
152. Carbuncle .. ..	—	2	—	2	—	
153. Abscesses and ulcers .. ..	—	9	—	9	2	
153. Cellulitis .. ..	—	9	1	9	—	
155. Varicose eczema .. ..	—	1	—	1	—	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
157. Arthritis .. ..	—	1	—	1	—	
157. Synovitis of knee .. ..	—	2	—	2	—	
<b>XIV. Affections produced by External Causes.</b>						
171. Suicide by cutting instrument	—	1	1	1	—	
183. Wounds by firearm .. ..	—	2	1	2	—	
194. Insolation .. ..	—	1	—	1	—	
201a. Dislocations .. ..	—	3	—	3	—	
201c. Fractures .. ..	—	13	—	13	—	
202. General injuries .. ..	1	23	—	24	1	
<b>XV. Ill-defined Diseases.</b>						
205a. Shock .. ..	—	2	—	2	—	
205a. Syncope .. ..	—	1	—	1	—	
205a. Cardiac failure .. ..	—	1	1	1	—	
205a. Ill-defined .. ..	—	2	—	2	—	
Totals .. ..	9	458	10	467	14	

TABLE V.

## RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.

## BROKEN HILL HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases. Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1d. Paratyphoid .. .. .	—	2	—	2	—	
3. Relapsing fever .. .. .	—	1	—	1	1	
5a. Malaria (Tertian) .. .. .	—	87	—	87	3	
11. Influenza .. .. .	—	7	—	7	—	
16a. Dysentery (Amoebic) .. .. .	—	1	—	1	—	
16b. Dysentery (Bacillary) .. .. .	—	2	—	2	—	
25b. Trypanosomiasis .. .. .	—	1	—	1	—	
31. Tuberculosis (Pulmonary) .. .. .	1	1	1	2	—	
<b>II. General Diseases not mentioned above.</b>						
47. Cancer of breast .. .. .	—	2	—	2	—	
48. Cancer of lip .. .. .	—	1	—	1	—	
51. Acute rheumatism .. .. .	—	3	—	3	—	
53. Scurvy .. .. .	—	1	—	1	—	
66. Alcoholism .. .. .	—	2	—	2	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
74. Apoplexy, haemorrhage .. .. .	1	—	1	1	—	
82b. Neuritis .. .. .	—	1	—	1	—	
82c. Neurasthenia .. .. .	—	2	—	2	—	
<b>IV. Affections of the Circulatory System.</b>						
90a. Valvular disease of heart .. .. .	—	4	—	4	—	
93. Phlebitis .. .. .	—	2	—	2	—	
<b>V. Affections of the Respiratory System.</b>						
98. Laryngitis .. .. .	—	1	—	1	—	
99a. Acute bronchitis .. .. .	—	5	—	5	—	
101a. Pneumonia (Lobar) .. .. .	—	1	—	1	—	
102. Pleurisy .. .. .	—	2	—	2	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. Edentation .. .. .	1	46	—	47	—	
109. Tonsilitis .. .. .	—	13	—	13	1	
111b. Ulcer of duodenum .. .. .	—	1	—	1	—	
112. Gastritis .. .. .	—	2	—	2	—	
Dyspepsia .. .. .	—	1	—	1	—	
114. Enteritis .. .. .	1	3	—	4	1	
117. Appendicitis .. .. .	1	5	—	6	—	
118. Hernia .. .. .	—	3	—	3	—	
119a. Rectal polypus .. .. .	—	1	—	1	—	
Carried forward .. .. .	5	204	2	209	6	

BROKEN HILL HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	5	204	2	209	6	
119b. Constipation .. ..	—	4	—	4	1	
122b. Cirrhosis of liver .. ..	1	—	—	1	—	
123. Biliary Calculus .. ..	—	1	—	1	—	
124. Jaundice .. ..	—	1	—	1	—	
<b>VII. Diseases of the Genito-Urinary System</b> (Non-Venereal).						
131. Pyelitis .. ..	—	1	—	1	—	
132. Renal calculus .. ..	—	1	—	1	—	
141b. Dyspareunia .. ..	—	1	—	1	—	
141b. Dysmenorrhoea .. ..	—	2	—	2	—	
<b>VIII. Puerperal State.</b>						
143a. Normal labour .. ..	4	50	—	54	—	
143ba. Abortion .. ..	—	12	—	12	—	
143bc. Hyperemesis .. ..	1	1	—	2	—	
150. Mastitis .. ..	—	2	—	2	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
152. Carbuncle .. ..	—	3	—	3	—	
153. Whitlow .. ..	—	3	—	3	—	
153. Cellulitis .. ..	—	9	—	9	—	
155. Tropical ulcers .. ..	—	2	—	2	—	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
157. Synovitis .. ..	—	4	—	4	—	
<b>XII. Diseases of Infancy.</b>						
161. Premature birth .. ..	—	1	—	1	—	
162. Mongolism .. ..	—	1	1	1	—	
162. Phimosis .. ..	—	3	—	3	—	
<b>XIV. Affections produced by External Causes.</b>						
176. Insect bite .. ..	—	1	—	1	—	
178. Burns .. ..	—	1	—	1	—	
184. Wounds, stabbing .. ..	—	1	—	1	—	
188. Wounds, crushing .. ..	1	19	—	20	1	
189. Injuries by animals .. ..	—	1	—	1	—	
194. Sunstroke .. ..	—	1	—	1	—	
201b. Sprain .. ..	—	1	—	1	—	
201c. Fractures .. ..	—	7	1	7	1	
Totals .. ..	12	338	4	350	9	



TABLE V.

## RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.

## LUSAKA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1a. Typhoid fever .. ..	—	3	—	3	—	
1c. Paratyphoid fever .. ..	—	1	—	1	—	
5c. Malaria (aestivo-autumnal) ..	1	69	—	70	—	
5e. Blackwater .. ..	—	2	—	2	—	
11. Influenza .. ..	1	4	—	5	—	
16a. Dysentery (amoebic) .. ..	—	3	—	3	—	
21. Erysipelas .. ..	—	1	—	1	—	
31. Tuberculosis (pulmonary) ..	—	1	1	1	—	
38c. Syphilis (tertiary) .. ..	—	1	—	1	—	
<b>II. General Diseases not mentioned above.</b>						
47. <i>Malignant tumours of the breast.</i> (Sarcoma) .. ..	—	1	—	1	—	
48. <i>Malignant tumours of the skin.</i> (Rodent ulcer) .. ..	—	1	—	1	—	
50. <i>Tumours, non-malignant.</i> (Papilloma of the bladder)	—	1	—	1	—	
52. <i>Chronic rheumatism</i> .. ..	—	3	—	3	—	
66. <i>Alcoholism.</i> (Delirium tremens)	—	1	1	1	—	
68. <i>Chronic poisoning by organic sub-</i> <i>stances.</i> (Morphinomania)	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
82b. Neuritis .. ..	—	1	—	1	—	
85b. <i>Affections of the organs of vision.</i> (Conjunctivitis) .. ..	—	1	—	1	—	
<b>IV. Affections of the Circulatory System.</b>						
90a. <i>Other diseases of the heart.</i> (Valvular Mitral) .. ..	—	2	1	2	—	
90b. Myocarditis .. ..	—	1	—	1	—	
93. <i>Diseases of the veins.</i> (Haemorrhoids) .. ..	—	2	—	2	—	
94. <i>Diseases of the lymphatic system.</i> (Lymphadenitis) .. ..	—	3	—	3	—	
<b>V. Affections of the Respiratory System.</b>						
98. Laryngitis .. ..	—	1	—	1	—	
99. <i>Bronchitis.</i> (a) Acute .. ..	—	5	—	5	—	
100. Broncho-pneumonia .. ..	—	3	1	3	—	
101. <i>Pneumonia.</i> (a) Lobar .. ..	—	2	—	2	—	
Carried forward .. ..	2	114	4	116	—	

LUSAKA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	2	114	4	116	—	
102. Pleurisy .. .. .	—	2	—	2	—	
103. Congestion of the lungs ..	—	2	—	2	—	
105. Asthma .. .. .	—	3	—	3	—	
107. <i>Other affections of the lungs.</i>						
Haemoptysis of unknown origin .. .. .	—	1	—	1	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. <i>Diseases of teeth or gums.</i>						
Pyorrhoea .. .. .	—	5	—	5	—	
108b. <i>Other affections of the mouth.</i>						
Stomatitis .. .. .	—	3	—	3	—	
109. <i>Affections of the tonsils.</i>						
Tonsilitis .. .. .	—	2	—	2	—	
111a. Ulcer of the stomach .. ..	—	1	—	1	—	
112. <i>Other affections of the stomach.</i>						
Dyspepsia .. .. .	—	1	—	1	—	
113. <i>Diarrhoea and Enteritis.</i>						
Under two years .. ..	—	1	—	1	—	
114. <i>Diarrhoea and Enteritis.</i>						
Two years and over .. ..	—	2	—	2	—	
117. Appendicitis .. .. .	—	4	—	4	—	
122a. <i>Cirrhosis of the liver.</i> Alcoholic	—	1	—	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non Venereal).</b>						
129. Chronic Nephritis .. ..	—	1	1	1	—	
133. <i>Diseases of the bladder.</i> Cystitis	—	2	—	2	—	
139. <i>Uterine tumours.</i> Polypus ..	1	1	—	2	—	
140. Uterine haemorrhage (non-puer- peral) .. .. .	—	4	—	4	—	
141a. Metritis .. .. .	—	2	—	2	—	
141b. Sterility .. .. .	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
143a. Normal labour .. .. .	1	18	—	19	1	
143b. <i>Accidents of Pregnancy.</i>						
(a) Abortion .. .. .	—	1	—	1	—	
(c) <i>Other accidents of preg-         nancy.</i>						
Vomiting of pregnancy	—	1	—	1	—	
Threatened miscarriage	—	1	—	1	—	
149. <i>Sequelae of labour.</i> Pyosalpinx following labour .. ..	—	1	—	1	—	
Carried forward .. ..	4	175	5	179	1	

LUSAKA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	4	175	5	179	1	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
152. Carbuncle .. ..	—	1	—	1	—	
153. Abscess. Whitlow .. ..	—	3	—	3	—	
Cellulitis .. ..	1	7	—	8	—	
<b>XIV. Affections produced by External Causes.</b>						
176. Attacks of poisonous animals.						
Snake-bite .. ..	—	1	—	1	—	
178. Burns (by fire) .. ..	—	1	1	1	—	
183. Gun-shot wounds .. ..	—	1	—	1	—	
185. Wounds (by fall) .. ..	—	2	—	2	—	
201c. Fracture .. ..	—	5	—	5	—	
<b>XV. Ill-defined Diseases.</b>						
205a. Diseases not already specified or ill-defined .. ..	—	4	—	4	1	
Totals .. ..	5	200	6	205	2	

## Operations.

Appendicitis .. ..	3
Curettages .. ..	5
Removal of haemorrhoids..	1
Tonsillectomies .. ..	2
Removal of sarcoma of breast .. ..	1
	—
	12
	—



TABLE V.

## RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.

## FORT JAMESON HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
3. Relapsing fever .. ..	—	3	—	3	—	
5c. Malaria .. ..	—	7	—	7	—	
5e. Blackwater fever .. ..	—	1	—	1	—	
31. Tuberculosis lung .. ..	—	1	—	1	—	
42. Trypanosomiasis .. ..	—	1	—	1	—	
<b>II. General Diseases not mentioned above.</b>						
50. Tumour of breast .. ..	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
82b. Neuritis .. ..	—	1	—	1	—	
86. Otitis media .. ..	—	1	—	1	—	
<b>IV. Affections of the Circulatory System.</b>						
88. Endocarditis .. ..	—	1	—	1	—	
<b>VI. Diseases of the Digestive System.</b>						
109. Tonsilitis .. ..	—	5	—	5	—	
112. Gastritis .. ..	—	1	—	1	—	
114. Enteritis .. ..	—	1	—	1	—	
117. Appendicitis .. ..	—	2	—	2	—	
118. Hernia .. ..	—	1	—	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
132. Renal calculus .. ..	—	1	—	1	—	
141b. Bartholin abscess .. ..	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
143a. Confinement .. ..	—	4	—	4	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Abscess neck .. ..	—	1	—	1	—	
Cellulitis .. ..	—	2	—	2	—	
Ischio rectal .. ..	—	1	—	1	—	
155. Haematoma .. ..	—	1	—	1	—	
Carried forward .. ..	—	38	—	38	—	

FORT JAMESON HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	—	38	—	38	—	
<b>XI. Malformations.</b>						
159. Ingrowing toenail .. ..	—	1	—	1	—	
<b>XIV. Affections produced by External Causes.</b>						
201c. Fracture of humerus .. ..	—	1	—	1	—	
202. Concussion .. ..	—	1	—	1	—	
202. Minor injuries .. ..	—	2	—	2	—	
Totals .. ..	—	43	—	43	—	

TABLE V.

## RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.

## KASAMA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
3. Relapsing fever .. ..	—	1	—	1	—	
5c. Malaria .. ..	—	1	—	1	—	
<b>II. General Diseases not mentioned above.</b>						
85b. Acute conjunctivitis .. ..	—	1	—	1	—	
<b>IV. Affections of the Circulatory System.</b>						
93. Haemorrhoids .. ..	—	1	—	1	—	
94. Lymphadenitis .. ..	—	1	—	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
136. Phimosi .. ..	—	1	—	1	—	
141b. Metorrhagia .. ..	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
143bc. Hyperemesis gravidum .. ..	—	1	—	1	—	
<b>XIV. Affections produced by External Causes.</b>						
202. Concussions .. ..	—	1	—	1	—	
Totals .. ..	—	9	—	9	—	

TABLE V.

## RETURN OF DISEASES AND DEATHS (EUROPEAN IN-PATIENTS) FOR THE YEAR 1929.

## MONGU HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>II. General Diseases.</b>						
50. Tumours, non-malignant ..	—	1	—	1	—	Fibro adenoma.
<b>VIII. Puerperal State.</b>						
143a. Normal labour .. ..	—	1	—	1	—	Complete
143ba. Abortion .. ..	—	1	—	1	—	
<b>XI. Malformations.</b>						
159. Hydrocephalus .. ..	—	1	1	1	—	Following Spina bifida
Totals .. ..	—	4	1	4	—	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## LIVINGSTONE HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1a. Typhoid fever .. ..	—	5	5	5	—	
2. Typhus fever .. ..	—	1	1	1	—	
3. Relapsing fever .. ..	—	6	1	6	—	
5c. Malaria .. ..	—	49	3	49	2	
5e. Blackwater .. ..	—	1	—	1	—	
6. Smallpox .. ..	—	31	1	31	1	
7. Measles .. ..	—	1	—	1	—	
9. Whooping cough .. ..	—	6	—	6	—	
10. Diphtheria .. ..	—	1	—	1	—	
11. Influenza .. ..	1	151	34	152	—	
16a. Dysentery (amoebic) .. ..	—	1	—	1	—	
16b. Dysentery (bacillary) .. ..	—	1	1	1	—	
16c. Dysentery (undefined) .. ..	—	23	11	23	—	
20. Leprosy .. ..	5	11	—	16	2	
24. Cerebrospinal fever .. ..	—	9	8	9	—	
25b. Chickenpox .. ..	1	87	1	88	6	
31. Pulmonary tuberculosis .. ..	—	5	3	5	—	
38b. Secondary Syphilis .. ..	—	11	—	11	2	
38c. Tertiary syphilis .. ..	—	1	—	1	—	
38e. Syphilis (period not indicated)	9	95	—	104	6	
40a. Gonorrhoea .. ..	—	32	—	32	2	
41. Septicaemia .. ..	3	2	2	5	—	
Carried forward .. ..	19	530	71	549	21	



LIVINGSTONE HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	19	530	71	549	21	
<b>II. General Diseases not mentioned above.</b>						
50. Lipoma .. .. .	—	1	—	1	—	
52. Chronic rheumatism .. ..	—	3	—	3	1	
52. Myalgia .. .. .	—	1	—	1	—	
53. Scurvy .. .. .	5	32	1	37	4	
54. Pellagra .. .. .	—	1	1	1	—	
58b. Anaemia .. .. .	—	2	1	2	1	
69. Onyalai .. .. .	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
71. Meningitis .. .. .	—	8	5	8	—	
74a. Cerebral Haemorrhage ..	—	3	3	3		
77. Mental alienation .. ..	—	1	—	1	1	
78. Epilepsy .. .. .	—	4	—	4	—	
85b. Confinements .. .. .	—	10	—	10	—	
85e. Other affections of the eye ..	2	5	—	7	2	
86. Otitis media .. .. .	—	9	—	9	—	
<b>IV. Affections of the Circulatory System.</b>						
87. Pericarditis .. .. .	—	2	2	2	—	
92. Thrombosis leg .. .. .	—	1	—	1	—	
93. Haemorrhoids .. .. .	—	2	—	2	1	
93. Phlebitis .. .. .	—	4	—	4	—	
94. Bubo .. .. .	—	1	—	1	—	
95. Epistaxis .. .. .	—	1	1	1	—	
95. Spontaneous haemorrhage ..	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
98. Laryngitis .. .. .	—	1	—	1	—	
99. Cough .. .. .	—	1	—	1	—	
99b. Bronchitis .. .. .	—	6	—	6	—	
100. Broncho-pneumonia .. ..	—	13	8	13	2	
101a. Lobar pneumonia .. ..	—	2	2	2	—	
101b. Influenza-pneumonia .. ..	—	161	58	161	6	
101b. Pneumonia, unclassified ..	5	35	15	40	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. Dental caries .. .. .	—	1	—	1	—	
108a. Edentation .. .. .	—	2	—	2	—	
108b. Stomatitis .. .. .	—	2	—	2	—	
109. Tonsillitis .. .. .	—	2	—	2	—	
112. Gastritis .. .. .	—	1	—	1	—	
113-114. Diarrhoea .. .. .	1	4	—	5	—	
115. Ankylostomiasis .. .. .	1	82	19	83	1	
116a. Tapeworm .. .. .	—	1	—	1	—	
Carried forward .. ..	33	937	187	970	40	

LIVINGSTONE HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	33	937	187	970	40	
118. Hernia .. ..	1	7	2	8	—	
119b. Constipation .. ..	—	5	—	5	—	
126. Peritonitis .. ..	—	3	3	3	—	
<b>VII. Diseases of the Genito-Urinary System</b>						
(Non-Venereal).						
129. Nephritis .. ..	—	1	1	1	—	
130b. Schistosomiasis .. ..	—	20	2	20	1	
Haematuria .. ..	—	4	—	4	—	
131. Pyelitis .. ..	—	1	1	1	—	
136. Epididymitis .. ..	—	1	—	1	—	
Orchitis .. ..	—	5	—	5	—	
Hydrocele .. ..	—	3	—	3	—	
139. Fibroid uterus .. ..	—	1	—	1	—	
141a. Endometritis .. ..	—	3	—	3	—	
<b>VIII. Puerperal State.</b>						
143a. Normal labour .. ..	—	15	—	15	—	
143ba. Abortion .. ..	—	4	—	4	—	
143bc. Premature birth .. ..	—	1	—	1	1	
145. Retained membranes .. ..	—	3	—	3	—	
146. Puerperal fever .. ..	—	1	1	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Abscesses .. ..	—	10	—	10	—	
Ulcers .. ..	23	278	5	301	18	
Cellulitis .. ..	—	14	2	14	1	
154a. Tenia .. ..	—	2	—	2	—	
154b. Scabies .. ..	—	5	—	5	—	
155. Jiggers .. ..	—	2	—	2	2	
Itch .. ..	—	3	—	3	—	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
156. Periostitis .. ..	—	5	—	5	3	
157. Synovitis .. ..	—	7	—	7	1	
<b>XI. Diseases of Infancy.</b>						
160. Marasmus .. ..	—	2	2	2	—	
Carried forward .. ..	57	1,343	206	1,400	67	

LIVINGSTONE HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	57	1,343	206	1,400	67	
<b>XIV. Affections produced by External Causes.</b>						
176. Snake bite .. ..	—	1	—	1	—	
Insect bite .. ..	—	2	—	2	—	
178-179. Burns .. ..	2	13	1	15	5	
183. Gunshot wounds .. ..	—	7	2	7	1	
184. Wounds by cutting and stabbing instruments .. ..	—	56	—	56	6	
188. Wounds by crushing .. ..	—	4	1	4	—	
189. Kicks and bites .. ..	—	4	—	4	—	
201a. Dislocations .. ..	—	1	—	1	—	
201b. Sprains .. ..	—	3	—	3	—	
201c. Fractures .. ..	4	18	1	22	2	
202. General external injuries ..	13	90	1	103	4	
<b>XV. Ill-defined Diseases.</b>						
205a. Debility .. ..	—	11	2	11	—	
Headache .. ..	—	3	—	3	—	
Septic glands .. ..	—	5	—	5	—	
205b. Malingering .. ..	—	1	—	1	—	
Totals .. ..	76	1,562	214	1,638	85	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## BROKEN HILL HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
I. Epidemic, Endemic, and Infectious Diseases.						
1a. Enteric fever .. ..	—	1	1	1	—	
6. Smallpox .. ..	—	18	1	18	2	
7. Measles .. ..	—	1	—	1	—	
11. Influenza .. ..	37	423	8	460	39	
16c. Dysentery (undefined) .. ..	3	18	5	21	1	
20. Leprosy .. ..	—	9	—	9	1	
25b. Chickenpox .. ..	—	15	—	15	—	
25g. Yaws .. ..	—	7	—	7	1	
31. Tuberculosis (pulmonary and laryngeal) .. ..	—	15	11	15		
38e. Syphilis (period not indicated)	6	57	1	63	4	
40a. Gonorrhoea .. ..	—	12	—	12	—	
Carried forward .. ..	46	576	27	622	48	



BROKEN HILL HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	46	576	27	622	48	
<b>II. General Diseases not mentioned above.</b>						
49. Sarcoma .. ..	—	1	1	1	—	
53. Scurvy .. ..	—	1	—	1	—	
64. Splenic abscess .. ..	3	10	4	13	2	
67. Lead absorption .. ..	—	4	—	4	—	
69. Onychia .. ..	—	2	1	2	—	
77. Insanity .. ..	—	4	1	4	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
78. Epilepsy .. ..	—	6	—	6	—	
85b. Conjunctivitis .. ..	—	27	—	27	1	
86. Otitis .. ..	—	6	—	6	—	
<b>IV. Affections of the Circulatory System.</b>						
93. Phlebitis .. ..	—	12	—	12	—	
<b>V. Affections of the Respiratory System.</b>						
101b. Pneumonia (unclassified) ..	7	218	31	225	—	
<b>VI. Diseases of the Digestive System.</b>						
114. Diarrhoea .. ..	—	6	—	6	—	
118. Hernia .. ..	—	1	—	1	—	
119b. Volvulus .. ..	—	1	1	1	—	
126. Peritonitis .. ..	—	3	2	3	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
130b. Bilharzia .. ..	—	3	—	3	1	
131. Pyelitis .. ..	—	1	1	1	—	
<b>VIII. Puerperal State.</b>						
143a. Confinements .. ..	—	9	—	9	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
152. Carbuncle .. ..	—	4	—	4	—	
153. Ulcers and abscesses .. ..	19	176	—	195	6	
154b. Scabies .. ..	—	7	—	7	—	
155. Herpes .. ..	—	1	—	1	—	
155. Jiggers .. ..	—	2	—	2	1	
<b>XIV. Affections produced by external causes.</b>						
176. Snake bite .. ..	—	5	—	5	1	
178-179. Burns .. ..	—	28	—	28	5	
189. Lion wounds .. ..	—	1	1	1	—	
189. Dog bites .. ..	—	1	—	1	—	
202. General injuries .. ..	22	214	5	236	18	
Totals .. ..	97	1,330	75	1,427	83	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## LUSAKA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1. <i>Enteric Group.</i>						
(a) Typhoid fever .. ..	—	1	1	1	—	
3. Relapsing fever .. ..	—	1	—	1	—	
5. <i>Malaria.</i>						
(c) Aestivo-autumnal ..	—	14	—	14	—	
6. Smallpox .. ..	2	1	—	3	—	
11. Influenza .. ..	—	10	1	10	2	
16. <i>Dysentery.</i>						
(a) Amoebic .. ..	—	4	2	4	—	
(b) Bacillary .. ..	—	2	1	2	1	
20. Leprosy .. ..	—	4	—	4	—	
25. <i>Other Epidemic Diseases.</i>						
(b) Varicella .. ..	—	6	—	6	—	
(g) Yaws .. ..	1	27	—	28	3	
(h) Trypanosomiasis ..	—	1	—	1	—	
31. Tuberculosis (pulmonary) ..	—	4	4	4	—	
37. Tuberculosis (disseminated).						
(a) Acute .. ..	—	4	4	4	—	
38. Syphilis. (a) Primary ..	2	60	—	62	5	
40a. Gonorrhoea .. ..	—	1	—	1	—	
41. Septicaemia .. ..	—	2	2	2	—	
<b>II. General Diseases not mentioned above.</b>						
52. Chronic rheumatism .. ..	—	18	—	18	—	
64. Diseases of the spleen.						
Splenic abscess .. ..	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
71. Meningitis .. ..	—	1	—	1	—	
74. <i>Apoplexy.</i>						
(b) Cerebral embolism ..	—	1	1	1	—	
(c) Cerebral thrombosis ..	—	1	1	1	—	
77. Other forms of mental alienation	—	7	—	7	—	
78. Epilepsy .. ..	—	1	—	1	—	
80. Infantile convulsions .. ..	—	1	1	1	—	
85. <i>Affections of the organs of vision.</i>						
(b) Conjunctivitis .. ..	—	13	—	13	—	
86. <i>Affections of the ear.</i>						
Otalgia .. ..	—	3	—	3	—	
Carried forward .. ..	5	189	18	194	11	

LUSAKA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	5	189	18	194	11	
<b>V. Affections of the Respiratory System.</b>						
99. <i>Bronchitis.</i>						
(a) Acute .. ..	—	3	—	3	—	
100. Broncho-pneumonia .. ..	—	1	1	1	—	
101. <i>Pneumonia.</i>						
(a) Lobar .. ..	1	29	4	30	2	
102. Pleurisy .. ..	—	3	—	3	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. <i>Diseases of teeth or gums.</i>						
Gingivitis .. ..	—	2	—	2	—	
108b. <i>Other affections of the mouth.</i>						
Stomatitis .. ..	—	5	—	5	—	
114. <i>Diarrhoea and enteritis.</i>						
2 years and over .. ..	—	20	—	20	1	
118. Hernia (strangulated) .. ..	—	1	1	1	—	
119a. Fistula-in-ano (chronic suppuration) .. ..	—	1	1	1	—	
119b. Constipation .. ..	—	4	—	4	—	
127. <i>Other affections of the digestive system.</i>						
Intestinal obstruction ..	—	1	1	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
129. <i>Chronic nephritis (uraemia)</i> ..	—	1	1	1	—	
130b. Schistosomiasis .. ..	—	2	1	2	—	
136. <i>Diseases (Non-Venereal) of the Genital Organs of man.</i>						
Hydrocele .. ..	—	3	—	3	—	
Haematocoele .. ..	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
146. Puerperal Septicaemia .. ..	—	1	—	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
151. Gangrene .. ..	—	1	—	1	—	
153. Abscess .. ..	—	18	—	18	3	
154b. Scabies .. ..	—	5	—	5	—	
155. <i>Other diseases of the skin and cellular tissues.</i>						
Chigoes .. ..	—	1	—	1	—	
Tropical ulcers .. ..	—	54	—	54	2	
Carried forward .. ..	6	346	28	352	19	



LUSAKA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	6	346	28	352	19	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
157. Diseases of joints. Arthritis ..	—	10	—	10	—	
<b>XIV. Affections produced by external causes.</b>						
176. <i>Attacks of poisonous animals.</i>						
Snake bite .. ..	—	3	—	3	—	
178. Burns (by fire) .. ..	—	11	—	11	—	
179. Burn (by hot water) .. ..	—	1	—	1	—	
183. Wounds (by firearms) .. ..	—	5	—	5	—	
184, 185, 186, 187. Wounds by cutting instruments, by falls, in mines or quarries, by machinery, etc.	—	41	—	41	—	
201c. Fractures .. ..	—	8	1	8	—	
<b>XVI. Diseases, the total of which have not caused ten deaths .. ..</b>	9	49	—	58	—	
Totals ... ..	15	474	29	489	19	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## MONGU HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
3. Relapsing fever .. ..	—	3	—	3	—	
5c. Malaria .. ..	4	214	2	218	1	
6. Alastrim .. ..	—	1	—	1	—	
11. Influenza .. ..	—	18	—	18	—	
16b. Dysentery (bacillary) .. ..	—	6	—	6	—	
20. Leprosy .. ..	—	1	—	1	—	
31. Tuberculosis (pulmonary) ..	—	3	2	3	—	
35. Tubercular arthritis .. ..	—	1	—	1	—	
36. Tubercular adenitis .. ..	—	2	—	2	1	
38b. Syphilis (secondary) .. ..	3	41	—	44	8	
38c. Syphilis (tertiary) .. ..	—	1	—	1	1	
40a. Gonorrhoea .. ..	—	8	—	8	—	
Carried forward ..	7	299	4	306	11	

MONGU HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	7	299	4	306	11	
<b>II. General Diseases not mentioned above.</b>						
50. Tumours (non-malignant) ..	—	6	—	6	—	Fibroma 2 Lipoma 2 Cyst 1 Papilloma 1
51. Acute rheumatism .. ..	2	5	—	7	—	
52. Chronic rheumatism .. ..	1	22	—	23	1	
53. Scurvy .. .. .	—	1	—	1	—	
58b. Anaemia .. .. .	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
74a. Cerebral haemorrhage .. ..	—	1	—	1	—	
77. Insanity .. .. .	—	1	—	1	—	Dementia 1
78. Epilepsy .. .. .	1	1	—	2	—	
82b. Neuritis .. .. .	—	3	—	3	—	
85b. Conjunctivitis .. .. .	2	6	—	8	1	
85e. Blepharitis .. .. .	—	1	—	1	—	
85e. Corneal ulcer .. .. .	—	2	—	2	—	
85e. Foreign body .. .. .	—	1	—	1	—	
86. Otitis .. .. .	—	2	—	2	—	
<b>IV. Affections of the Circulatory System.</b>						
90a. Valvular mitral .. .. .	—	1	—	1	—	
90b. Myocarditis .. .. .	—	2	—	2	—	
94. Lymphangitis .. .. .	—	5	—	5	—	
94. Lymphadenitis .. .. .	—	4	—	4	—	
95. Epistaxis .. .. .	—	3	—	3	—	
96. Bradycardia .. .. .	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
99a. Bronchitis .. .. .	—	1	—	1	—	
100. Broncho-pneumonia .. ..	—	3	—	3	—	
101a. Pneumonia (lobar) .. ..	—	7	—	7	—	
102. Pleurisy .. .. .	—	1	—	1	—	
<b>VI. Diseases of the Digestive System.</b>						
109. Tonsilitis .. .. .	—	4	—	4	—	
111. Gastric ulcer (perforating) ..	—	2	2	2	—	
113. Enteritis (under two) .. ..	—	1	—	1	—	
114. Enteritis (over two) .. ..	—	10	—	10	—	
114. Colitis .. .. .	—	1	1	1	—	
115. Ankylostomiasis .. .. .	—	1	—	1	—	
Carried forward .. .. .	13	399	7	412	13	

MONGU HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	13	399	7	412	13	
<b>VII. Diseases of the Genito-Urinary System</b>						
(Non-Venereal).						
133. Cystitis .. .	—	1	1	1	—	
134b. Urethral fistula .. .	—	1	—	1	—	
136. Epididymitis .. .	—	1	—	1	—	
136. Orchitis .. .	—	2	—	2	—	
136. Paraphimosis .. .	—	1	—	1	—	
141a. Endometritis .. .	—	1	—	1	—	
141b. Vulvo-vaginitis .. .	—	1	—	1	—	
142. Mastitis .. .	—	1	—	1	—	
142. Mammary abscess .. .	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
149. Uterine hyperinvolution ..	—	1	—	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
151. Gangrene .. .	1	1	—	2	1	
153. Abscess .. .	1	12	—	13	2	
153. Cellulitis .. .	1	34	—	35	4	
155. Impetigo .. .	—	1	—	1	—	
155. Ulcer .. .	1	7	—	8	2	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
156. Osteitis .. .	—	1	—	1	—	
156. Necrosis .. .	—	2	—	2	—	
157. Synovitis .. .	—	1	—	1	—	
157. Bursitis .. .	—	1	—	1	—	
<b>XI. Malformations.</b>						
159. Imperforate anus .. .	—	1	—	1	—	
<b>XII. Diseases of Infancy.</b>						
162. Omphalitis .. .	—	1	—	1	—	
<b>XIII. Affections of Old Age.</b>						
164. Senility .. .	—	1	—	1	—	
<b>XIV. Affections produced by external causes.</b>						
170. Suicide by firearms .. .	—	1	1	1	—	
178. Burns by fire .. .	1	3	—	4	—	
183. Wounds by firearms .. .	—	3	—	3	—	
184. Wounds by cutting instruments	—	6	—	6	1	
189. Crocodile bite .. .	—	1	—	1	—	
189. Gored by ox .. .	—	1	—	1	—	
201b. Sprain .. .	—	3	—	3	1	
201c. Fracture .. .	1	2	—	3	1	Humerus 1 Femur 1
202. Other external injuries ..	—	7	—	7	1	
Carried forward .. .	19	500	9	519	26	



MONGU HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	19	500	9	519	26	
<b>XV. Ill-defined diseases.</b>						
205a. Ascites .. ..	—	1	1	1	—	
205a. Oedema .. ..	—	2	—	2	—	
205a. Observation cases .. ..	—	2	—	2	—	
Totals .. ..	19	505	10	524	26	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## KASAMA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
5c. Malaria .. ..	—	97	—	97	1	
6. Alastrim .. ..	—	3	—	3	—	
7. Measles .. ..	—	1	—	1	—	
16b. Dysentery (bacillary) .. ..	—	1	—	1	—	
20. Leprosy .. ..	1	14	—	15	8	
25b. Varicella .. ..	—	31	—	31	—	
25g. Yaws .. ..	1	13	—	14	—	
25h. Trypanosomiasis .. ..	—	1	—	1	—	
31. Tuberculosis .. ..	—	1	1	1	—	
38e. Syphilis .. ..	1	30	—	31	—	
<b>II. General Diseases not mentioned above.</b>						
52. Rheumatism .. ..	1	14	—	15	1	
58b. Anaemia .. ..	—	41	—	41	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
75b. Paralysis .. ..	1	2	—	3	1	
77. Mania .. ..	1	—	—	1	1	
78. Epilepsy .. ..	—	3	—	3	—	
85b. Conjunctivitis .. ..	—	12	—	12	—	
85e. Iritis .. ..	—	1	—	1	—	
85e. Keratitis .. ..	—	2	—	2	—	
85e. Cataract .. ..	—	2	—	2	—	
85e. Diplopia .. ..	—	1	—	1	—	
86. Mastoid .. ..	—	1	—	1	—	
Carried forward .. ..	6	271	1	277	12	

KASAMA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	6	271	1	277	12	
<b>IV. Affections of the Circulatory System.</b>						
94. Lymphadenitis .. ..	—	4	—	4	—	
<b>V. Affections of the Respiratory System.</b>						
99. Bronchitis .. ..	—	5	—	5	—	
101b. Pneumonia .. ..	—	3	—	3	—	
102. Pleurisy .. ..	—	2	—	2	—	
<b>VI. Diseases of the Digestive System.</b>						
108a. Dental caries .. ..	—	3	—	3	—	
109. Tonsilitis .. ..	—	1	—	1	—	
114. Diarrhoea (two years and over)	—	7	—	7	—	
118. Hernia .. ..	—	1	—	1	—	
119a. Anal fistula .. ..	—	1	—	1	—	
119. Colic .. ..	—	2	—	2	—	
<b>VII. Diseases of the Genito-Urinary System.</b>						
130b. Schistosomiasis .. ..	—	1	1	1	—	
136. Phimosis .. ..	—	1	—	1	—	
136. Hydrocele .. ..	—	3	—	3	—	
141a. Endometritis .. ..	—	1	—	1	—	
141b. Menorrhagia .. ..	—	2	—	2	—	
142. Mastitis .. ..	—	2	—	2	—	
143bc. Hypermesis .. ..	—	1	—	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Abscess .. ..	—	2	—	2	—	
154b. Scabies .. ..	—	2	—	2	—	
155. Ulcer .. ..	1	4	—	5	1	
155. Ulcer (tropical) .. ..	1	13	—	14	1	
155. Ichthyosis .. ..	—	1	—	1	—	
155. Eczema .. ..	—	1	—	1	—	
155. Filariasis .. ..	—	1	—	1	—	
<b>X. Diseases of Bone and Organs of Locomotion.</b>						
156. Osteoma .. ..	—	3	—	3	—	
157. Synovitis .. ..	—	4	—	4	—	
158. Osteo-sarcoma .. ..	1	—	—	1	—	
158. Osteomyelitis .. ..	1	—	—	1	—	
Carried forward .. ..	10	342	2	352	14	

KASAMA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	10	342	2	352	14	
<b>XIV. Affections produced by external causes.</b>						
176. Snake bite .. ..	—	2	—	2	—	
178. Burns .. ..	—	7	—	7	—	
184. Wounds (incised) .. ..	—	2	—	2	—	
185. „ (lacerated) .. ..	1	14	—	15	1	
185. „ (septic) .. ..	—	5	—	5	2	
189. Dog bite .. ..	—	1	—	1	—	
189. Leopard mauling .. ..	—	1	—	1	—	
201a. Dislocation .. ..	—	1	—	1	—	
201b. Sprain .. ..	—	2	—	2	—	
201c. Fracture (tibia) .. ..	—	2	—	2	—	
202. Contusion .. ..	—	5	—	5	—	
<b>XV. Ill-defined diseases.</b>						
205. Asthenia .. ..	2	4	—	6	—	
205. Ascites .. ..	—	1	—	1	—	
205. Unknown .. ..	—	1	1	1	—	
Total .. ..	13	390	3	403	17	

TABLE VA.

RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.  
FORT ROSEBERY HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
3. Relapsing fever .. ..	—	1	1	1	—	
5c. Malaria .. ..	—	24	—	24	1	
20. Leprosy .. ..	1	7	—	8	—	
25b. Chickenpox .. ..	—	53	—	53	1	
25g. Yaws .. ..	4	123	—	127	5	
31. Phthisis .. ..	—	1	—	1	—	
38e. Syphilis .. ..	1	42	1	43	1	
<b>II. General Diseases not mentioned above.</b>						
43. Cancrum Ovis .. ..	—	1	—	1	—	
44. Cancer of liver .. ..	—	1	—	1	—	
52. Rheumatism .. ..	—	2	—	2	—	
53. Scurvy .. ..	—	1	—	1	—	
60a. Goitre .. ..	—	8	—	8	—	
Carried forward .. ..	6	264	2	270	8	



FORT ROSEBERY HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	6	264	2	270	8	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
78. Epilepsy .. ..	—	3	—	3	—	
85c. Trachoma .. ..	—	3	—	3	—	
85e. Iritis .. ..	—	8	—	8	1	
<b>IV. Affections of the Circulatory System.</b>						
92. Epistaxis .. ..	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
99. Bronchitis .. ..	—	3	—	3	—	
101b. Pneumonia .. ..	—	2	1	2	—	
<b>VI. Diseases of the Digestive System.</b>						
114. Diarrhoea .. ..	—	2	—	2	—	
126. Peritonitis .. ..	—	1	1	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
136. Hydrocele .. ..	—	1	—	1	—	
136. Phimosis .. ..	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
143bc. Difficult labour .. ..	—	1	—	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Abscesses and ulcers .. ..	4	41	—	45	1	
155. Jiggers .. ..	—	18	—	18	—	
155. Acute eczema .. ..	—	2	—	2	—	
155. Itch .. ..	—	5	—	5	—	
155. Corns .. ..	—	1	—	1	—	
155. Filariasis .. ..	—	1	—	1	—	
<b>X. Diseases of Bones and Organs of Locomo- tion (other than Tuberculosis).</b>						
157. Arthritis .. ..	—	3	—	3	—	
158. Periostitis .. ..	—	1	—	1	—	
<b>XIV. Affections produced by external causes.</b>						
176. Snake bite .. ..	—	3	—	3	—	
178. Burns (by fire) .. ..	2	7	—	9	—	
189. Leopard bite .. ..	—	1	—	1	—	
201c. Fracture .. ..	—	1	—	1	—	
202. Various injuries .. ..	—	14	—	14	—	
<b>XV. Ill-defined diseases.</b>						
205a. Not already specified or ill-defined	—	20	2	20	3	
Totals .. ..	12	408	6	420	13	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## CHOMA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
5c. Malaria .. .. .	—	5	—	5	1	
6. Smallpox .. .. .	—	1	—	1	—	
11. Influenza .. .. .	—	2	—	2	—	
16c. Dysentery .. .. .	—	4	3	4	—	
20. Leprosy .. .. .	—	9	—	9	3	
24. Cerebrospinal meningitis ..	—	1	1	1	—	
25b. Chickenpox .. .. .	—	1	—	1	—	
25g. Yaws .. .. .	24	510	1	534	—	
33. Tubercular peritonitis .. ..	—	1	—	1	—	
35. Tubercular hip joint .. ..	—	1	—	1	—	
38a. Primary syphilis .. .. .	—	18	—	18	1	
40a. Gonorrhoea .. .. .	—	2	—	2	—	
<b>II. General Diseases not mentioned above.</b>						
50. Lipoma .. .. .	—	1	—	1	—	
52. Chronic rheumatism .. .. .	—	3	—	3	2	
53. Scurvy .. .. .	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
74a. Cerebral Haemorrhage ..	—	1	—	1	—	
77. Dementia .. .. .	—	2	—	2	—	
78. Epilepsy .. .. .	—	2	—	2	—	
85b. Conjunctivitis .. .. .	—	4	—	4	—	
<b>V. Affections of the Respiratory System.</b>						
101b. Pneumonia .. .. .	—	13	6	13	5	
<b>VI. Diseases of the Digestive System.</b>						
108a. Dental extraction .. .. .	—	1	—	1	—	
112. Gastritis .. .. .	—	1	—	1	—	
114. Diarrhoea .. .. .	—	1	1	1	—	
118. Hernia .. .. .	—	2	—	2	—	
119b. Constipation .. .. .	—	2	—	2	—	
<b>VIII. Puerperal State.</b>						
128. Acute nephritis .. .. .	—	2	1	2	—	
141b. Sterility .. .. .	—	1	—	1	—	
142. Mastitis .. .. .	—	1	—	1	—	
Carried forward .. .. .	24	593	13	617	12	

CHOMA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total. Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	24	593	13	617	12	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Abscess .. ..	—	2	—	2	—	
154b. Scabies .. ..	—	3	—	3	1	
155. Tropical ulcer .. ..	2	55	—	57	3	
155. Chigoes .. ..	—	3	—	3	—	
178. Burns .. ..	—	6	1	6	—	
183. Gunshot wounds .. ..	—	2	—	2	1	
184-5-6-7-8. Wounds.. ..	—	67	—	67	9	
189. Dog bite .. ..	—	1	—	1	—	
201c. Fractures .. ..	—	7	—	7	1	
<b>XV. Ill-defined diseases.</b>						
205a. Unclassified .. ..	—	7	—	7	—	
Totals .. ..	26	746	14	772	27	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## ABERCORN HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
5c. Malaria .. ..	1	4	—	5	—	
6. Smallpox.. ..	—	2	—	2	1	
11. Influenza.. ..	—	1	—	1	1	
16a. Dysentery (amoebic) .. ..	—	1	—	1	—	
25g. Yaws .. ..	—	1	—	1	—	
38e. Syphilis .. ..	—	8	—	8	—	
40a. Gonorrhoea .. ..	—	2	—	2	—	
<b>II. General Diseases not mentioned above.</b>						
52. Rheumatism (chronic) .. ..	—	2	—	2	1	
58b. Anaemia (simple) .. ..	—	3	—	3	1	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
77. Insanity .. ..	—	1	—	1	—	
78. Epilepsy .. ..	—	1	—	1	—	
85a. Panophthalmitis .. ..	—	1	—	1	—	
85b. Conjunctivitis .. ..	—	10	—	10	—	
85e. Impaired vision .. ..	—	2	—	2	—	
86. Otorrhoea .. ..	—	1	—	1	—	
Carried forward .. ..	1	40	—	41	4	



ABERCORN HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	1	40	—	41	4	
<b>V. Affections of the Respiratory System.</b>						
99a. Bronchitis (acute) .. ..	2	3	—	5	1	
<b>VI. Diseases of the Digestive System.</b>						
108b. Thrush .. ..	—	1	—	1	—	
114. Diarrhoea (over two years) ..	—	2	—	2	—	
119b. Constipation .. ..	—	1	—	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
142. Mastitis .. ..	1	—	—	1	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Cellulitis .. ..	—	5	1	5	1	
155. Ulcer .. ..	—	1	—	1	—	
<b>X. Diseases of Bones and Organs of Locomo- tion (Non-Tubercular).</b>						
156. Osteitis .. ..	1	—	—	1	—	
157. Synovitis.. ..	—	1	—	1	—	
<b>XIV. Affections produced by external causes.</b>						
178. Burns by fire .. ..	1	1	—	2	—	
184. Cuts .. ..	—	1	—	1	—	
185. Wounds by fall .. ..	1	4	—	5	—	
189. Animal bites .. ..	1	2	—	3	1	
195. Lightning stroke .. ..	—	1	—	1	—	
201b. Sprain .. ..	—	1	—	1	—	
210c. Fracture .. ..	1	—	—	1	—	
<b>XV. Ill-defined diseases.</b>						
205b. Malingering .. ..	—	1	—	1	—	
Totals .. ..	9	65	1	74	7	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## NDOLA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1. Typhoid fever .. .. .	—	2	2	2	—	
5c. Malaria .. .. .	—	64	1	64	3	
6. Smallpox .. .. .	—	11	—	11	1	
11. Influenza .. .. .	2	4	1	6	—	
16c. Dysentery .. .. .	—	15	9	15	—	
20. Leprosy .. .. .	—	7	—	7	—	
24. Cerebrospinal meningitis ..	—	5	5	5	—	
25b. Chickenpox .. .. .	1	—	—	1	—	
25g. Yaws .. .. .	1	150	—	151	4	
38e. Syphilis .. .. .	1	90	4	91	1	
<b>II. General Diseases not mentioned above.</b>						
53. Scurvy .. .. .	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
101b. Pneumonia .. .. .	—	28	10	28	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
155. Tropical ulcers .. .. .	8	94	—	102	—	
<b>XV. Ill-defined Diseases.</b>						
205a. Surgical unspecified .. ..	—	84	5	84	—	
General unspecified .. .. .	2	75	6	77	2	
Totals .. .. .	15	630	43	645	11	

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## MAZABUKA HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
1a. Typhoid fever .. .. .	—	2	1	2	—	
5c. Malaria .. .. .	—	18	—	18	—	
11. Influenza .. .. .	—	5	1	5	1	
16b. Dysentery .. .. .	1	4	5	5	—	
20. Leprosy .. .. .	1	6		7	—	
Carried forward .. .. .	2	35	7	37	1	

MAZABUKA HOSPITAL (*continued*).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	2	35	7	37	1	
25b. Varicella .. ..	—	6	—	6	—	
25g. Yaws .. ..	—	33	—	33	—	
29. Tetanus .. ..	—	2	1	2	—	
38e. Syphilis .. ..	—	80	—	80	1	
40a. Gonorrhoea .. ..	—	6	—	6	—	
41. Septicaemia .. ..	—	2	2	2	—	
<b>II. General Diseases not mentioned above.</b>						
53. Scurvy .. ..	3	11	—	14	—	
55. Beri Beri .. ..	—	2	—	2	—	
69. Onyalai .. ..	—	1	1	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
71. Meningitis pneumococcal ..	—	1	1	1	—	
85b. Conjunctivitis .. ..	—	11	—	11	—	
85e. Corneal ulcer .. ..	—	4	—	4	—	
85e. Rupture of Iris .. ..	—	1	—	1	—	
86. Otitis media .. ..	—	5	1	5	—	
<b>V. Affections of the Respiratory System.</b>						
101b. Pneumonia .. ..	1	25	7	26	1	
<b>VI. Diseases of the Digestive System.</b>						
118. Left inguinal hernia .. ..	—	3	—	3	—	
119b. Intestinal obstruction .. ..	—	1	1	1	—	
125. Carcinoma (pancreas) .. ..	—	1	1	1	—	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
129. Albuminuria .. ..	—	1	—	1	—	
130b. Bilharzia .. ..	—	2	2	2	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Tropical ulcers .. ..	9	71	—	80	9	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
158. Osteomyelitis of tibia .. ..	—	2	—	2	—	
<b>XIV. Affections produced by external causes.</b>						
178-179. Severe burns .. ..	—	4	—	4	—	
189. Bite (rabid animal) .. ..	—	1	—	1	—	
201c. Fractures .. ..	—	4	—	4	—	
<b>XV. Ill-defined Diseases.</b>						
205a. Surgical .. ..	16	53	—	69	16	
205a. General unspecified .. ..	2	204	—	206	2	
Totals .. ..	33	572	24	605	30	



TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## SOLEWZI HOSPITAL.

There were 188 admissions to Solwezi Native Hospital for Tropical Ulcers, Syphilis, Leprosy, and various medical and surgical, and 1,318 admissions for Yaws, giving a total of 1,506 in-patients for the year, with 12 deaths, made up as follows:—

16c. Dysentery .. .. .	5
25g. Yaws .. .. .	1
41. Septicaemia .. .. .	1
101b. Pneumonia. .. .. .	3
164. Senile decay .. .. .	1
170. Gunshot wound—self-inflicted .. .. .	1
	—
	12
	—

TABLE VA.

## RETURN OF DISEASES AND DEATHS (NATIVE IN-PATIENTS) FOR THE YEAR 1929.

## FORT JAMESON HOSPITAL.

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>						
3. Relapsing fever .. .. .	—	7	—	7	—	
5c. Malaria .. .. .	—	43	—	43	—	
6. Smallpox .. .. .	—	8	1	8	—	
11. Influenza .. .. .	1	13	7	14	2	
13. Mumps .. .. .	—	3	—	3	—	
16c. Dysentery .. .. .	—	6	—	6	—	
20. Leprosy .. .. .	1	1	—	2	2	
25b. Chickenpox .. .. .	—	4	—	4	—	
31. Tuberculosis of glands .. .. .	—	1	—	1	—	
38e. Syphilis .. .. .	—	37	—	37	1	
40a. Gonorrhoea .. .. .	1	1	—	2	—	
<b>II. General Diseases not mentioned above.</b>						
50. Tumours .. .. .	—	3	—	3	—	
52. Rheumatism (chronic) .. .. .	—	8	—	8	1	
58. Debility .. .. .	—	1	—	1	—	
60a. Goitre .. .. .	—	1	—	1	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>						
77. Dementia .. .. .	—	2	—	2	—	
78. Epilepsy .. .. .	1	—	—	1	—	
85b. Conjunctivitis .. .. .	—	5	—	5	—	
85e. Iritis .. .. .	1	—	—	1	—	
85e. Blindness .. .. .	—	2	—	2	—	
85e. Cataract .. .. .	—	2	—	2	—	
86. Otorrhoea .. .. .	—	2	—	2	—	
Carried forward .. .. .	5	150	8	155	6	

## FORT JAMESON HOSPITAL (continued).

Diseases.	R. 1928.	Yearly Total.		Total Cases Treated.	R. 1929.	Remarks.
		Adms.	Deaths.			
Brought forward .. ..	5	150	8	155	6	
<b>IV. Affections of the Circulatory System.</b>						
88. Malignant endocarditis ..	—	1	—	1	—	
90a. V.D. heart .. ..	1	1	—	2	—	
93. Haemorrhoids .. ..	—	1	—	1	—	
<b>V. Affections of the Respiratory System.</b>						
99. Bronchitis .. ..	—	1	—	1	—	
101b. Pneumonia .. ..	1	6	1	7	—	
102. Pleurisy .. ..	—	1	—	1	—	
<b>VI. Diseases of the Digestive System.</b>						
109. Tonsilitis .. ..	—	2	—	2	—	
114. Diarrhoea .. ..	—	6	—	6	—	
115. Ankylostomiasis .. ..	—	2	—	2	—	
122b. Cirrhosis of liver .. ..	—	2	—	2	—	
177. Poisoning .. ..	—	1	—	1	1	
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>						
136. Orchitis .. ..	—	2	—	2	—	
141b. Vesico vaginal fistula .. ..	—	1	—	1	—	
<b>VIII. Puerperal State.</b>						
143bc. Difficult confinements .. ..	—	3	—	3	—	
<b>IX. Affections of the Skin and Cellular Tissues.</b>						
153. Cellulitis and sepsis .. ..	3	53	1	56	2	
155. Dermatitis and itch .. ..	—	5	—	5	—	
155. Cancrum oris .. ..	—	1	—	1	—	
155. Tropical ulcer .. ..	6	40	—	46	—	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>						
157. Synovitis .. ..	—	2	—	2	—	
<b>XIV. Affections produced by external causes.</b>						
176. Snake bite .. ..	—	3	—	3	—	
178-199. Burns .. ..	1	24	3	25	—	
201a. Dislocations .. ..	—	2	—	2	—	
201c. Fractures .. ..	—	8	1	8	3	
202. Minor accidents .. ..	2	26	—	28	1	
<b>XV. Ill-defined diseases.</b>						
205a. Dermatophilus .. ..	—	1	—	1	—	
205a. Ascites .. ..	—	3	1	3	—	
205b. Malingering .. ..	—	4	—	4	—	
Totals .. ..	19	352	15	371	13	

TABLE VI.

RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) ATTENDED IN THEIR HOMES  
FOR THE YEAR 1929.

MAZABUKA.

Diseases.	No. of Cases.	Remarks.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>		
1. Paratyphoid fever .. .. .	1	Sent to hospital.
5c. Malaria .. .. .	49	1 child died from cerebral malaria.
5e. Blackwater fever .. .. .	1	
8. Scarlet fever .. .. .	1	
11. Influenza .. .. .	1	
38e. Syphilis .. .. .	3	
40a. Gonorrhoea .. .. .	2	
<b>II. General Diseases not mentioned above.</b>		
51. Acute rheumatic fever .. .. .	1	
56. Rickets .. .. .	1	Hospital recommended.
69. Haemophilia .. .. .	1	Sent to hospital.
<b>III. Affections of the Nervous System and Organs of the Senses.</b>		
82a. Hysteria .. .. .	2	
82b. Neuritis .. .. .	1	
82b. Herpes zoster .. .. .	1	
85b. Conjunctivitis .. .. .	3	
85e. Iritis .. .. .	2	
85e. Foreign body in eye .. .. .	3	Removed.
86. Otitis media .. .. .	2	
<b>IV. Affections of the Circulatory System.</b>		
90. Cardiac disease .. .. .	3	
93. Haemorrhoids .. .. .	1	Infection.
<b>V. Affections of the Respiratory System.</b>		
97. Ethmoiditis .. .. .	1	
98. Tracheitis .. .. .	1	
99. Bronchitis .. .. .	2	
102. Pleurisy .. .. .	1	Sent to hospital.
<b>VI. Diseases of the Digestive System.</b>		
109. Tonsilitis .. .. .	4	
111b. Duodenal ulcer .. .. .	1	Sent to hospital.
112. Gastritis .. .. .	4	
114. Enteritis .. .. .	7	
116e. Thread worms .. .. .	1	
124. Cholecystitis .. .. .	1	Sent to hospital.
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>		
131. Pyelitis .. .. .	1	
133. Cystitis .. .. .	3	
141b. Dysmenorrhoea .. .. .	3	
Carried forward .. .. .	109	



## VIII. Puerperal State.

## IX. Affections of the Skin and Cellular Tissues.

## X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).

#### XIV. Affections produced by external causes.

RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.  
LUSAKA HOSPITAL.

Diseases.										No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>											
5. <i>Malaria.</i>											
	(a)	Aestivo-autumnal	..	..	..	..	..	..	..	82	—
11.	Influenza	.. ..	..	..	..	..	..	..	..	10	—
25. <i>Other Epidemic Diseases.</i>											
	(a)	Rubeola	..	..	..	..	..	..	..	1	—
	(h)	Trypanosomiasis	..	..	..	..	..	..	..	1	—
38e.	Syphilis	.. ..	..	..	..	..	..	..	..	8	—
40a.	Gonorrhoea	.. ..	..	..	..	..	..	..	..	6	—
Carried forward										108	—



## LUSAKA HOSPITAL (continued).

Diseases.										No. of Cases.	Deaths.
Brought forward .. .. .										165	1
<b>IX. Affections of the Skin and Cellular Tissues.</b>											
152.	Carbuncle	..	..	..	..	..	..	..	..	1	—
153.	<i>Abscess.</i>										
	Whitlow	..	..	..	..	..	..	..	..	4	—
	Cellulitis	..	..	..	..	..	..	..	..	3	—
155.	<i>Other diseases of the Skin.</i>										
	Pruritus	..	..	..	..	..	..	..	..	1	—
	Urticaria	..	..	..	..	..	..	..	..	2	—
	Eczema	..	..	..	..	..	..	..	..	2	—
	Acne	..	..	..	..	..	..	..	..	2	—
	Chigoes	..	..	..	..	..	..	..	..	1	—
<b>X. Diseases of Bones and Organs of Locomotion.</b>											
156.	<i>Diseases of Bones.</i>										
	Periostitis	..	..	..	..	..	..	..	..	1	—
<b>XIV. Affections produced by external causes.</b>											
176.	Snake bite	..	..	..	..	..	..	..	..	1	—
184, 185, 186, 187, 188.	Minor injuries	..	..	..	..	..	..	..	..	19	—
Totals .. .. .										202	1

TABLE VI.  
RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.  
FORT JAMESON HOSPITAL.

Diseases.	No. of Cases.	Deaths.
<b>II. General Diseases.</b>		
51-52. Muscular rheumatism .. .. .	3	-
<b>III. Affections of the Nervous System and Organs of the Senses.</b>		
86. Ear syringing .. .. .	7	-
<b>VI. Diseases of the Digestive System.</b>		
108a. Edentation .. .. .	3	-
109. Tonsillectomy .. .. .	2	-
<b>IX. Affections of the Skin and Cellular Tissues.</b>		
152. Boils .. .. .	1	-
153. Abscess .. .. .	1	-
153. Cellulitis .. .. .	12	-
<b>XIV. Affections produced by external causes.</b>		
178-179. Burns .. .. .	2	-
202. Minor injuries .. .. .	3	-
<b>XV. Ill-defined Diseases.</b>		
205a. Examinations under anaesthetic .. .. .	2	-
<b>Totals .. .. .</b>	<b>36</b>	<b>-</b>



TABLE VI.

RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.  
KASAMA HOSPITAL.

Diseases.	Male.	Female.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>			
3. Relapsing fever .. .. .	—	1	—
5c. Malaria .. .. .	4	—	—
11. Influenza .. .. .	1	1	—
<b>II. Diseases not mentioned above.</b>			
52. Rheumatism .. .. .	—	1	—
58b. Anaemia .. .. .	—	1	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>			
86. Cerumen .. .. .	1	—	—
<b>V. Affections of the Respiratory System.</b>			
97. Coryza .. .. .	—	1	—
98. Laryngitis .. .. .	—	1	—
<b>VI. Diseases of the Digestive System.</b>			
108a. Dental caries .. .. .	5	1	—
108b. Stomatitis .. .. .	—	—	—
109. Tonsilitis .. .. .	—	1	—
113. Diarrhoea (under two years) .. .. .	2	—	—
119b. Constipation .. .. .	—	1	—
<b>VII. Diseases of the Genito-Urinary System.</b>			
141b. Leucorrhoea .. .. .	—	1	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>			
153. Cellulitis .. .. .	1	—	—
155. Urticaria .. .. .	1	1	—
155. Myiasis .. .. .	1	—	—
155. Dermatitis .. .. .	—	1	—
<b>XIV. Affections produced by external causes.</b>			
185. Abrasion .. .. .	1	—	—
<b>XV. Ill-defined Diseases.</b>			
205a. Asthenia .. .. .	—	1	—
<b>Totals .. .. .</b>	<b>17</b>	<b>13</b>	<b>—</b>

TABLE VI.

RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.  
MONGU HOSPITAL.

Diseases.	Male.	Female.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>			
5c. Malaria .. .. .	6	3	—
16b. Dysentery .. .. .	1	—	—
25a. Rubella .. .. .	—	1	—
38a. Syphilis (primary) .. .. .	1	—	—
<b>II. General Diseases not mentioned above.</b>			
51. Acute rheumatism .. .. .	1	—	—
52. Chronic rheumatism .. .. .	2	1	—
58b. Anaemia .. .. .	—	1	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>			
82b. Neuritis .. .. .	1	—	—
82c. Neurasthenia .. .. .	1	1	—
85b. Conjunctivitis .. .. .	4	—	—
86. Eustachian catarrh .. .. .	1	—	—
86. Ear (foreign body) .. .. .	—	1	—
<b>IV. Affections of the Circulatory System.</b>			
93. Haemorrhoids .. .. .	3	—	—
94. Lymphangitis .. .. .	1	—	—
94. Lymphadenitis .. .. .	1	—	—
96. Tachycardia .. .. .	1	—	—
<b>V. Affections of the Respiratory System.</b>			
97. Coryza .. .. .	6	2	—
99. Bronchitis .. .. .	1	1	—
<b>VI. Diseases of the Digestive System.</b>			
108a. Dental caries .. .. .	3	1	—
108b. Stomatitis .. .. .	1	—	—
109. Tonsilitis .. .. .	—	1	—
109. Pharyngitis .. .. .	2	1	—
112. Gastritis .. .. .	2	1	—
112. Gastric dilatation .. .. .	1	—	—
112. Dyspepsia .. .. .	6	—	—
114. Enteritis (over two) .. .. .	2	1	—
119b. Constipation .. .. .	2	—	—
119b. Enteralgia .. .. .	1	1	—
124. Hepatic congestion .. .. .	1	—	—
<b>VII. Diseases of Genito-Urinary System (Non-Venereal).</b>			
133. Cystitis .. .. .	2	—	—
138. Salpingitis .. .. .	—	1	—
141b. Metrorrhagia .. .. .	—	1	—
141b. Leucorrhoea .. .. .	—	1	—
Carried forward .. .. .	54	20	—

MONGU HOSPITAL (*continued*).

Diseases.	Male.	Female.	Deaths.
Brought forward .. .. .	54	20	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>			
153. Abscess .. .. .	2	—	—
153. Cellulitis .. .. .	1	—	—
154a. Tinea .. .. .	1	—	—
154b. Scabies .. .. .	1	—	—
155. Urticaria .. .. .	1	—	—
155. Lichen Tropicus .. .. .	1	—	—
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>			
157. Synovitis .. .. .	1	—	—
157. Bursitis .. .. .	1	—	—
<b>XIV. Affections produced by external causes.</b>			
176. Insect bite .. .. .	—	1	—
178. Burns (by fire) .. .. .	1	—	—
185. Wounds (by fall) .. .. .	2	—	—
189. Dog bite .. .. .	1	—	—
201b. Sprain .. .. .	1	—	—
202. Other external injuries .. .. .	3	—	—
Totals .. .. .	71	21	—

TABLE VI.

**RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.**  
**ABERCORN HOSPITAL.**

Diseases.	No. of Cases.	Remarks.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>		
3. Relapsing fever .. .. .	1	
5c. Malaria .. .. .	10	
7. Measles .. .. .	2	
11. Influenza .. .. .	2	
<b>II. General Diseases not mentioned above.</b>		
52. Chronic rheumatism .. .. .	1	
58b. Anaemia .. .. .	3	Post malaria.
<b>III. Affections of the Nervous System and Sensory Organs.</b>		
85e. Iritis .. .. .	1	
86. Otitis media .. .. .	1	
86. Cerumen .. .. .	2	
<b>IV. Affections of the Circulatory System.</b>		
93. Haemorrhoids .. .. .	1	
93. Haematoma .. .. .	1	
94. Lymphadenitis (non-specific) .. .. .	2	
Carried forward .. .. .	27	



## ABERCORN HOSPITAL (continued).

Diseases.	No. of Cases.	Remarks.
Brought forward .. .. .	27	
<b>V. Affections of the Respiratory System.</b>		
99. Bronchitis .. .. .	2	
<b>VI. Diseases of the Digestive System.</b>		
108a. Caries .. .. .	5	
108b. Glossitis .. .. .	1	
109. Tonsilitis .. .. .	4	
112. Dyspepsia .. .. .	2	
114. Diarrhoea (over two) .. .. .	3	
114. Colitis .. .. .	1	
119b. Constipation .. .. .	1	
<b>VIII. Puerperal State.</b>		
143a. Normal labour .. .. .	1	
143ba. Abortion.. .. .	1	
<b>IX. Affections of the Skin and Cellular Tissues.</b>		
152. Boils .. .. .	2	
153. Whitlow .. .. .	1	
155. Cordylobia larvae .. .. .	1	
155. Veld sore .. .. .	1	
<b>XIV. Affections caused by external causes.</b>		
176. Insect bite .. .. .	1	
178. Burns .. .. .	1	
184. Cuts .. .. .	2	
Totals .. .. .	57	

TABLE VI.

## RETURN OF DISEASES AND DEATHS (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.

CHOME. HOSPITAL.

Diseases.	No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>		
5c. Malaria (aestivo-autumnal) .. .. .	59	—
11. Influenza .. .. .	19	—
16c. Dysentery (undefined) .. .. .	4	—
25b. Varicella .. .. .	1	—
38a. Syphilis (primary) .. .. .	1	—
38b. Syphilis (secondary) .. .. .	2	—
40a. Gonorrhoea .. .. .	5	—
Carried forward .. .. .	91	—

Carried forward	..	..	..	..	..	..	..	211	1
-----------------	----	----	----	----	----	----	----	-----	---

CHOME HOSPITAL (continued).

Diseases.										No. of Cases.	Deaths.
Brought forward .. .. .										211	1
112.	Dyspepsia	..	..	..	..	..	..	..	..	11	—
113.	Diarrhoea (under two years)	..	..	..	..	..	..	..	..	3	—
114.	Diarrhoea (over two years)	..	..	..	..	..	..	..	..	4	—
115.	Ankylostomiasis	..	..	..	..	..	..	..	..	1	—
116a.	Costodes	..	..	..	..	..	..	..	..	2	—
117.	Appendicitis	..	..	..	..	..	..	..	..	7	—
119b.	Constipation	..	..	..	..	..	..	..	..	5	—
124.	Hepatic congestion	..	..	..	..	..	..	..	..	2	—
127.	Intestinal colic	..	..	..	..	..	..	..	..	2	—
<b>VII. Diseases of the Genito-Urinary System.</b>											
131.	Pyelitis	..	..	..	..	..	..	..	..	1	—
132.	Urinary calculus	..	..	..	..	..	..	..	..	1	—
138.	Salpingitis	..	..	..	..	..	..	..	..	2	—
141a.	Metritis	..	..	..	..	..	..	..	..	1	—
141b.	Uterine displacements	..	..	..	..	..	..	..	..	1	—
141b.	Dysmenorrhoea	..	..	..	..	..	..	..	..	8	—
141b.	Leucorrhoea	..	..	..	..	..	..	..	..	1	—
<b>VIII. Puerperal State.</b>											
143a.	Normal labour	..	..	..	..	..	..	..	..	4	—
143a.	Pregnancy	..	..	..	..	..	..	..	..	11	—
143ba.	Abortion	..	..	..	..	..	..	..	..	2	—
143bc.	Threatened abortion	..	..	..	..	..	..	..	..	1	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>											
152.	Boils	..	..	..	..	..	..	..	..	2	—
153.	Whitlow	..	..	..	..	..	..	..	..	1	—
153.	Cellulitis	..	..	..	..	..	..	..	..	2	—
153.	Abscess	..	..	..	..	..	..	..	..	9	—
154a.	Tinea	..	..	..	..	..	..	..	..	2	—
154b.	Scabies	..	..	..	..	..	..	..	..	1	—
155.	Psoriasis	..	..	..	..	..	..	..	..	1	—
155.	Acne vulgaris	..	..	..	..	..	..	..	..	2	—
155.	Pruritis	..	..	..	..	..	..	..	..	1	—
155.	Impetigo contagiosa	..	..	..	..	..	..	..	..	3	—
155.	Eczema	..	..	..	..	..	..	..	..	2	—
155.	Urticaria	..	..	..	..	..	..	..	..	2	—
155.	Chigoes	..	..	..	..	..	..	..	..	1	—
155.	Chilblain	..	..	..	..	..	..	..	..	1	—
155.	Bursitis	..	..	..	..	..	..	..	..	1	—
<b>X. Diseases of Bones and Organs of Locomotion.</b>											
157.	Arthritis	..	..	..	..	..	..	..	..	1	—
Carried forward .. .. .										313	1



Diseases.								No. of Cases.	Deaths.
Brought forward .. .. .								313	1
<b>XIV. Affections produced by external causes.</b>									
177.	Accidental arsenic poisoning	..	..	..	..	..	..	1	—
178.	Burns .. .. .	..	..	..	..	..	..	3	—
184.	Wounds (cutting)	..	..	..	..	..	..	5	—
185.	„ (by fall) ..	..	..	..	..	..	..	3	—
188.	„ (crushing)	..	..	..	..	..	..	4	—
194.	Sunstroke .. .. .	..	..	..	..	..	..	2	—
201a.	Dislocation .. .. .	..	..	..	..	..	..	1	—
201b.	Sprain .. .. .	..	..	..	..	..	..	4	—
201c.	Fracture .. .. .	..	..	..	..	..	..	6	—
202.	Other wounds .. .. .	..	..	..	..	..	..	4	—
<b>XV. Ill-defined Diseases.</b>									
205a.	Debility .. .. .	..	..	..	..	..	..	17	—
Totals .. .. .								363	1

TABLE VI.

RETURN OF DISEASES (EUROPEAN OUT-PATIENTS) FOR THE YEAR 1929.  
LIVINGSTONE HOSPITAL.

There were 1,565 attendances of European patients at the Hospital, principally for dressings.

TABLE VIA.

RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.  
MONGU HOSPITAL.

Diseases.										Male.	Female.	Remarks.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>												
5c.	Malaria	..	..	..	..	..	..	..	..	258	69	
9.	Whooping cough	..	..	..	..	..	..	..	..	2	1	
11.	Influenza	..	..	..	..	..	..	..	..	6	4	
16b.	Dysentery (bacillary)	..	..	..	..	..	..	..	..	5	1	
20.	Leprosy	..	..	..	..	..	..	..	..	2	1	
31.	Tuberculosis (pulmonary)	..	..	..	..	..	..	..	..	2	—	
38b.	Syphilis (secondary)	..	..	..	..	..	..	..	..	135	64	
38d.	Syphilis (hereditary)	..	..	..	..	..	..	..	..	3	—	
40a.	Gonorrhoea	..	..	..	..	..	..	..	..	37	1	
<b>II. General Diseases not mentioned above.</b>												
50.	Tumours (non-malignant)	..	..	..	..	..	..	..	..	9	5	Papilloma 2 Fibroma 3 Chondroma 1 Cyst 5 Lipoma 1 Ostcomo 1 Haematoma 1
Carried forward										459	146	

MONGU HOSPITAL (*continued*).

Diseases.								Male.	Female.	Remarks.
Brought forward .. .. .								459	146	
51.	Acute rheumatism	..	..	..	..	..	..	2	—	
52.	Chronic rheumatism and myalgia	..	..	..	..	..	..	226	32	
58b.	Anaemia	..	..	..	..	..	..	2	6	
64.	Splenitis	..	..	..	..	..	..	4	—	
<b>III. Affections of the Nervous System and Organs of the Senses.</b>										
75b.	Facial paralysis	..	..	..	..	..	..	1	—	
82b.	Neuritis and neuralgia	..	..	..	..	..	..	10	4	
82c.	Neurasthenia	..	..	..	..	..	..	—	1	
85b.	Conjunctivitis	..	..	..	..	..	..	464	169	
85e.	Corneal ulcer	..	..	..	..	..	..	2	5	
85e.	Blepharitis	..	..	..	..	..	..	12	14	
85e.	Scleritis	..	..	..	..	..	..	2	—	
85e.	Iritis	..	..	..	..	..	..	—	1	
85e.	Eye (foreign body)	..	..	..	..	..	..	1	—	
86.	Otitis	..	..	..	..	..	..	52	23	
86.	Ear (foreign body, cerumen, etc.)	..	..	..	..	..	..	18	12	
<b>IV. Affections of the Circulatory System.</b>										
90a.	Valvular (mitral)	..	..	..	..	..	..	2	1	
93.	Varicose Veins	..	..	..	..	..	..	1	—	
94.	Lymphadenitis	..	..	..	..	..	..	6	1	
95.	Epistaxis	..	..	..	..	..	..	1	—	
96.	Tachycardia	..	..	..	..	..	..	—	1	
<b>V. Affections of the Respiratory System.</b>										
97.	Coryza	..	..	..	..	..	..	2	—	
97.	Nose (foreign body)	..	..	..	..	..	..	2	—	
98.	Laryngitis	..	..	..	..	..	..	1	1	
99.	Bronchitis and bronchial catarrh	..	..	..	..	..	..	247	31	
<b>VI. Diseases of the Digestive System.</b>										
108a.	Dental caries	..	..	..	..	..	..	36	27	
108a.	Gingivitis	..	..	..	..	..	..	15	4	
108b.	Stomatitis	..	..	..	..	..	..	1	—	
108b.	Glossitis	..	..	..	..	..	..	1	—	
109.	Pharyngitis	..	..	..	..	..	..	12	2	
109.	Tonsillitis	..	..	..	..	..	..	3	4	
112.	Dyspepsia	..	..	..	..	..	..	11	3	
113.	Enteritis (under two)	..	..	..	..	..	..	14	1	
114.	Enteritis (over two)	..	..	..	..	..	..	60	5	
119b.	Constipation	..	..	..	..	..	..	144	10	
119b.	Enteralgia	..	..	..	..	..	..	68	42	
122b.	Hepatic Cirrhosis	..	..	..	..	..	..	1	—	
Carried forward .. .. .								1,883	546	

MONGU HOSPITAL (*continued*).

Diseases.									Male.	Female.	Remarks.
Brought forward .. .. .									1,883	546	
<b>VII. Diseases of the Genito-Urinary System.</b>											
133.	Cystitis	..	..	..	..	..	..	..	1	—	
133.	Vesical atony	..	..	..	..	..	..	..	1	—	
136.	Orchitis	..	..	..	..	..	..	..	1	—	
136.	Paraphimosis	..	..	..	..	..	..	..	1	—	
136.	Balanitis	..	..	..	..	..	..	..	1	—	
137.	Ovarian cyst	..	..	..	..	..	..	..	—	1	
139.	Myoma uteri	..	..	..	..	..	..	..	—	1	
141b.	Menorrhagia	..	..	..	..	..	..	..	—	5	
142.	Mastitis	..	..	..	..	..	..	..	—	4	
142.	Mammary abscess	..	..	..	..	..	..	..	—	3	
<b>IX. Affections of the Skin and Cellular Tissues.</b>											
152.	Furuncle	..	..	..	..	..	..	..	8	1	
153.	Abscess	..	..	..	..	..	..	..	36	15	
153.	Cellulitis	..	..	..	..	..	..	..	137	18	
154b.	Scabies	..	..	..	..	..	..	..	24	—	
155.	Eczema	..	..	..	..	..	..	..	7	2	
155.	Herpes	..	..	..	..	..	..	..	2	—	
155.	Chigoes	..	..	..	..	..	..	..	2	—	
155.	Impetigo	..	..	..	..	..	..	..	3	2	
155.	Alopecia	..	..	..	..	..	..	..	1	—	
155.	Pityriasis	..	..	..	..	..	..	..	6	1	
155.	Vitiligo	..	..	..	..	..	..	..	1	—	
155.	Ulcer	..	..	..	..	..	..	..	18	18	
155.	Mycetoma	..	..	..	..	..	..	..	1	—	
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>											
156.	Osteitis	..	..	..	..	..	..	..	2	—	
156.	Necrosis	..	..	..	..	..	..	..	1	1	
157.	Arthritis	..	..	..	..	..	..	..	1	—	
157.	Synovitis	..	..	..	..	..	..	..	5	—	
<b>XI. Malformations.</b>											
159.	Microcephalus	..	..	..	..	..	..	..	1	—	
<b>XIV. Affections produced by external causes.</b>											
176.	Scorpion sting	..	..	..	..	..	..	..	1	—	
178.	Burns (by fire)	..	..	..	..	..	..	..	22	5	
179.	Burns (other than fire)	..	..	..	..	..	..	..	2	—	
184.	Wounds (by cutting instruments)	..	..	..	..	..	..	..	—	1	
201a.	Dislocation	..	..	..	..	..	..	..	1	—	
201b.	Sprain	..	..	..	..	..	..	..	8	1	
201c.	Fracture	..	..	..	..	..	..	..	1	—	
202.	Other external injuries	..	..	..	..	..	..	..	504	27	
<b>XV. Ill-defined Diseases.</b>											
205a.	Asthenia	..	..	..	..	..	..	..	1	—	
205a.	Observation cases	..	..	..	..	..	..	..	24	—	
205b.	Malingering	..	..	..	..	..	..	..	1	—	
Totals .. .. .									2,709	652	



TABLE VIA.

**RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
**FORT ROSEBERY HOSPITAL.**

Diseases.	Male.	Female.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>			
5c. Malaria .. .. .	99	120	
16c. Dysentery .. .. .	2	—	
20. Leprosy .. .. .	1	—	
25g. Yaws .. .. .	1	—	
38e. Syphilis .. .. .	4	2	—
<b>II. General Diseases not mentioned above.</b>			
52. Rheumatism .. .. .	4	2	—
60a. Goitre .. .. .	—	93	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>			
85. Iritis and conjunctivitis .. .. .	50	29	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>			
155. Ulcers .. .. .	90	75	—
155. Itch .. .. .	20	12	—
155. Jiggers .. .. .	7	—	—
<b>XIV. Affections produced by external causes.</b>			
176. Snake bite .. .. .	4	—	—
202. Accidents .. .. .	22	15	—
<b>XV. Ill-defined Diseases.</b>			
205a. Surgical unspecified .. .. .	420	102	—
205a. General unspecified .. .. .	104	398	—
Totals .. .. .	828	848	—

TABLE VIA.

**RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
**KASAMA HOSPITAL.**

Diseases.	Male.	Female.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>		
3. Relapsing fever .. .. .	2	—
5c. Malaria .. .. .	260	102
11. Influenza .. .. .	7	—
38e. Syphilis .. .. .	4	—
<b>II. General Diseases not mentioned above.</b>		
50. Lipoma .. .. .	2	—
50. Wart .. .. .	1	—
52. Rheumatism .. .. .	68	8
58. Anaemia debility .. .. .	1	1
60a. Goitre .. .. .	—	1
Carried forward .. .. .	345	112



## KASAMA HOSPITAL (continued).

Diseases.										Male.	Female.
Brought forward .. .. .										1,145	741
<b>XII. Diseases of Infancy.</b>											
162.	Marasmus ..	..	..	..	..	..	..	..	..	4	2
<b>XIV. Affections produced by external causes.</b>											
176.	Snake bite	..	..	..	..	..	..	..	..	1	1
178.	Burn ..	..	..	..	..	..	..	..	..	24	11
184.	Wounds (incised)	..	..	..	..	..	..	..	..	75	17
185.	„ (lacerated)	..	..	..	..	..	..	..	..	255	106
185.	„ (septic) ..	..	..	..	..	..	..	..	..	9	3
189.	Bite (dog)	..	..	..	..	..	..	..	..	1	2
201c.	Fracture (finger)	..	..	..	..	..	..	..	..	1	1
201b.	Sprain ..	..	..	..	..	..	..	..	..	8	1
201a.	.. ..	..	..	..	..	..	..	..	..	2	—
202.	Contusions	..	..	..	..	..	..	..	..	13	1
<b>XV. Ill-defined Diseases.</b>											
205a.	Asthenia ..	..	..	..	..	..	..	..	..	1	—
Totals .. .. .										1,539	886

TABLE VIA.

### RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.

CHOME HOSPITAL.

Diseases.											No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>												
5c.	Malaria	..	..	..	..	..	..	..	..	..	40	—
16c.	Dysentery	..	..	..	..	..	..	..	..	..	1	—
20.	Leprosy	..	..	..	..	..	..	..	..	..	1	—
25g.	Yaws	..	..	..	..	..	..	..	..	..	1	—
38e.	Syphilis	..	..	..	..	..	..	..	..	..	12	—
40a.	Gonorrhoea	..	..	..	..	..	..	..	..	..	4	—
<b>II. General Diseases not mentioned above.</b>												
52.	Chronic rheumatism	..	..	..	..	..	..	..	..	..	12	—
60a.	Goitre	..	..	..	..	..	..	..	..	..	1	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>												
78.	Epilepsy	..	..	..	..	..	..	..	..	..	1	—
85e.	Eye affections	..	..	..	..	..	..	..	..	..	91	—
86.	Earache	..	..	..	..	..	..	..	..	..	14	—
Carried forward .. .. .											178	—



CHOMA HOSPITAL (*continued*).

Diseases.											No. of Cases.	Deaths.
Brought forward .. .. .											178	—
<b>IV. Affections of the Circulatory System.</b>												
95. Epistaxis .. .											1	—
<b>V. Affections of the Respiratory System.</b>												
97. Colds, etc. .. .											120	—
101b. Pneumonia .. .											4	—
<b>VI. Diseases of the Digestive System.</b>												
108a. Dental .. .											69	—
114. Diarrhoea .. .											36	—
119b. Constipation .. .											45	—
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>												
136. Haematocele .. .											1	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>												
152. Boils .. .											6	—
153. Tropical ulcers .. .											6	—
154b. Scabies .. .											13	—
<b>XIV. Affections produced by external causes.</b>												
178-9. Burns .. .											34	—
189. Dog bite .. .											1	—
201a. Dislocation .. .											1	—
201b. Sprain .. .											1	—
201c. Fracture .. .											1	—
202. Minor wounds .. .											138	—
<b>XV. Ill-defined Diseases.</b>												
205a. Unclassified .. .											46	—
Totals .. .											701	—

TABLE VIA.

## RETURN OF DISEASES (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.

## SOLWEZI HOSPITAL.

There were 296 Native Out-patients during the year, principally for dressings and the treatment of minor ailments.

ABERCORN HOSPITAL.

Diseases.											No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>												
3.	Relapsing fever	..	..	..	..	..	..	..	..	..	2	—
5c.	Malaria	..	..	..	..	..	..	..	..	..	93	—
11.	Influenza	..	..	..	..	..	..	..	..	..	17	—
16a.	Amoebic dysentery	..	..	..	..	..	..	..	..	..	1	—
25b.	Varicella	..	..	..	..	..	..	..	..	..	4	—
25g.	Yaws	..	..	..	..	..	..	..	..	..	13	—
38.	Syphilis	..	..	..	..	..	..	..	..	..	22	—
40a.	Genorrhoea	..	..	..	..	..	..	..	..	..	4	—
<b>II. General Diseases not mentioned above.</b>												
50.	Neuroma	..	..	..	..	..	..	..	..	..	1	—
52.	Chronic rheumatism	..	..	..	..	..	..	..	..	..	92	—
58b.	Anaemia	..	..	..	..	..	..	..	..	..	11	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>												
78.	Epilepsy	..	..	..	..	..	..	..	..	..	2	—
82b.	Neuritis	..	..	..	..	..	..	..	..	..	7	—
85a.	Corneal ulcer	..	..	..	..	..	..	..	..	..	1	—
85b.	Conjunctivitis	..	..	..	..	..	..	..	..	..	413	—
85e.	Foreign body in eye	..	..	..	..	..	..	..	..	..	1	—
86.	Otorrhoea	..	..	..	..	..	..	..	..	..	29	—
<b>V. Affections of the Respiratory System.</b>												
97.	Foreign body in nose	..	..	..	..	..	..	..	..	..	1	—
97.	Coryza	..	..	..	..	..	..	..	..	..	1	—
99a.	Acute bronchitis	..	..	..	..	..	..	..	..	..	399	—
102.	Pleurisy	..	..	..	..	..	..	..	..	..	1	—
<b>VI. Diseases of the Digestive System.</b>												
108a.	Caries	..	..	..	..	..	..	..	..	..	36	—
108b.	Stomatitis	..	..	..	..	..	..	..	..	..	14	—
109.	Tonsilitis	..	..	..	..	..	..	..	..	..	3	—
112.	Indigestion	..	..	..	..	..	..	..	..	..	4	—
113.	Diarrhoea (under 2)	..	..	..	..	..	..	..	..	..	6	—
114.	Diarrhoea (over 2)	..	..	..	..	..	..	..	..	..	156	—
116a.	Taenia	..	..	..	..	..	..	..	..	..	1	—
116c.	Ascaris	..	..	..	..	..	..	..	..	..	2	—
119b.	Constipation	..	..	..	..	..	..	..	..	..	264	—
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>												
142.	Mastitis	..	..	..	..	..	..	..	..	..	2	—
<b>VIII. Puerperal State.</b>												
145bc.	Difficult labour	..	..	..	..	..	..	..	..	..	1	—
Carried forward											1,604	—



## ABERCORN HOSPITAL (continued).

Diseases.											No. of Cases.	Deaths.
Brought forward .. .. .											1,604	—
<b>IX. Affections of the Skin and Cellular Tissues.</b>												
152.	Boils	..	..	..	..	..	..	..	..	..	6	—
153.	Abscess	..	..	..	..	..	..	..	..	..	19	—
154b.	Scabies	..	..	..	..	..	..	..	..	..	26	—
155.	Cracked feet	..	..	..	..	..	..	..	..	..	6	—
155.	Ulcers	..	..	..	..	..	..	..	..	..	5	—
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>												
157.	Synovitis	..	..	..	..	..	..	..	..	..	7	—
<b>XIV. Affections produced by external causes.</b>												
176.	Snake bite	..	..	..	..	..	..	..	..	..	2	—
178.	Burns	..	..	..	..	..	..	..	..	..	14	—
184.	Cuts	..	..	..	..	..	..	..	..	..	522	—
189.	Dog bite	..	..	..	..	..	..	..	..	..	4	—
195.	Lightning stroke	..	..	..	..	..	..	..	..	..	1	—
201b.	Sprain	..	..	..	..	..	..	..	..	..	4	—
Totals .. .. .											2,220	—

Total attendances Out-Patients during the year, 5,105.

TABLE VIA.

RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.  
FORT JAMESON.

Diseases.	No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>		
3. Relapsing fever .. .. .	4	—
5c. Malaria .. .. .	52	—
11. Influenza .. .. .	30	—
16c. Dysentery .. .. .	2	—
38e. Syphilis .. .. .	3	—
<b>II. General Diseases not mentioned above.</b>		
52. Rheumatism .. .. .	34	—
<b>III. Affections of the Nervous System and Organs of the Senses.</b>		
78. Epilepsy .. .. .	1	—
85b. Conjunctivitis .. .. .	90	—
85e. Iritis .. .. .	2	—
85e. Otorrhoea.. .. .	16	—
Carried forward .. .. .	234	—



## FORT JAMESON (continued).

Diseases.										No. of Cases.	Deaths.
Brought forward .. .. .										234	-
<b>IV. Affections of the Circulatory System.</b>											
90a.	V.D. heart	..	..	..	..	..	..	..	..	9	-
<b>V. Affections of the Respiratory System.</b>											
99b.	Bronchitis	..	..	..	..	..	..	..	..	44	-
101b.	Pneumonia	..	..	..	..	..	..	..	..	4	-
102.	Pleurisy	..	..	..	..	..	..	..	..	1	-
<b>VI. Diseases of the Digestive System.</b>											
108a.	Dental caries	..	..	..	..	..	..	..	..	31	-
109.	Tonsilitis	..	..	..	..	..	..	..	..	16	-
114.	Diarrhoea	..	..	..	..	..	..	..	..	76	-
119b.	Constipation	..	..	..	..	..	..	..	..	54	-
<b>VII. Diseases of the Genito-Urinary System (Non-Venereal).</b>											
130b.	Schistosomiasis	..	..	..	..	..	..	..	..	3	-
<b>IX. Affections of the Skin and Cellular Tissues.</b>											
152.	Boils and septic sores	..	..	..	..	..	..	..	..	96	-
153.	Cellulitis	..	..	..	..	..	..	..	..	59	-
154b.	Scabies	..	..	..	..	..	..	..	..	15	-
155.	Tropical ulcers	..	..	..	..	..	..	..	..	29	-
<b>X. Diseases of Bones and Organs of Locomotion (other than Tuberculosis).</b>											
157.	Synovitis	..	..	..	..	..	..	..	..	4	-
<b>XIV. Affections produced by external causes.</b>											
176.	Insect bites	..	..	..	..	..	..	..	..	14	-
178.	Burns	..	..	..	..	..	..	..	..	22	-
184-5-7-8.	Cuts and wounds	..	..	..	..	..	..	..	..	83	-
<b>XV. Ill-defined Diseases.</b>											
205a.	Debility and malnutrition	..	..	..	..	..	..	..	..	5	-
Totals .. .. .										799	-

TABLE VIA.

**RETURN OF DISEASES AND DEATHS (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
LUSAKA HOSPITAL.

Diseases.										No. of Cases.	Deaths.
<b>I. Epidemic, Endemic, and Infectious Diseases.</b>											
5.	<i>Malaria.</i>										
	(c)	Aestivo-autumnal	..	..	..	..	..	..	..	72	—
6.	Smallpox ..		..	..	..	..	..	..	..	7	—
11.	Influenza ..		..	..	..	..	..	..	..	7	—
16.	<i>Dysentery.</i>										
	(a)	Amoebic	..	..	..	..	..	..	..	3	—
20.	Leprosy ..		..	..	..	..	..	..	..	3	—
25b.	Chickenpox		..	..	..	..	..	..	..	2	—
38e.	Syphilis ..		..	..	..	..	..	..	..	165	—
<b>V. Affections of the Respiratory System.</b>											
100.	Broncho-pneumonia		..	..	..	..	..	..	..	2	2
101.	Pneumonia.										
	(a)	Lobar	..	..	..	..	..	..	..	6	1
<b>IX. Affections of the Skin and Cellular Tissues.</b>											
155.	<i>Other Diseases of the Skin and Cellular Tissues.</i>										
	Tropical ulcer ..		..	..	..	..	..	..	..	68	—
<b>XVI. Diseases, the total of which have not caused ten deaths.</b>										1,434	1
Totals .. .. .										1,769	4

TABLE VIA.

**RETURN OF DISEASES (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
MAZABUKA HOSPITAL.

Total attendances of Out-patients during the year, 7,348.

TABLE VIA.

**RETURN OF DISEASES (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
BROKEN HILL HOSPITAL.

2,285 Natives attended at the Broken Hill Hospital as Out-patients during the year, with total attendances of 9,940.

These were mainly for dressings and the treatment of minor ailments.

TABLE VIA.

**RETURN OF DISEASES (NATIVE OUT-PATIENTS) FOR THE YEAR 1929.**  
LIVINGSTONE HOSPITAL.

(16th May to 31st December, 1929.)

There were 1,195 Native Out-patients and total attendances of 5,182, mainly for the treatment of minor ailments and injuries, during the period May to December, 1929.